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OM protein - protein search, using sw model

Run on: June 7, 2005, 17:45:50 ; Search time 164 Seconds  
(without alignments)  
1176.789 Million cell updates/sec

Title: US-09-771-956-9

Perfect score: 2616

Sequence: 1 MSFYSKQDYNMDELDYYN.....KQASPVAFKINNDDNEKI 499

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : A\_Geneseq\_16Dec04:\*

- 1: Geneseq1980s:\*
- 2: Geneseq1990s:\*
- 3: Geneseq2000s:\*
- 4: Geneseq2001s:\*
- 5: Geneseq2002s:\*
- 6: Geneseq2003as:\*
- 7: Geneseq2003bs:\*
- 8: Geneseq2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2616	100.0	499	4 AAE08004	Aae08004 Human chi
2	2616	100.0	499	5 ABG32254	Abg32254 Neurosept
3	2326	88.9	455	2 AAR95939	Aar95939 Human Y5
4	2326	88.9	455	2 AAW29447	Aaw29447 Human hip
5	2326	88.9	455	2 AAW29413	Aaw29413 Human hip
6	2326	88.9	455	2 AAW37093	Aaw37093 Homo espi
7	2326	88.9	455	2 AAY57461	Aay57461 Human hip
8	2326	88.9	455	4 AAE08002	Aae08002 Human neu
9	2326	88.9	455	5 ABB84497	Abb84497 Human hip
10	2326	88.9	455	5 ABB79510	Abb79510 Human neu
11	2326	88.9	455	6 AAO23266	Aao23266 Human neu
12	2326	88.9	455	8 ADO29564	Ado29564 Human GPC
13	2317	88.6	455	4 AAE08016	Aae08016 African g
14	2285.5	87.4	499	4 AAE08012	Aae08012 Rat chime
15	2276.5	87.0	508	4 AAE08010	Aae08010 Mouse chi
16	2271	86.8	445	2 AAW27604	Aaw27604 Human neu
17	2271	86.8	445	2 AAW15230	Aaw15230 Human neu
18	2271	86.8	445	2 AAY14554	Aay14554 Human neu
19	2271	86.8	445	3 AAY52578	Aay52578 Human NPY
20	2271	86.8	445	4 AAE07958	Aae07958 Human neu
21	2271	86.8	445	4 AAE06692	Aae06692 Human neu
22	2271	86.8	445	4 AAE07922	Aae07922 Human neu
23	2271	86.8	445	4 AAB85121	Aab85121 Human neu
24	2271	86.8	445	4 AAB85110	Aab85110 Human neu
25	2271	86.8	445	6 ABB81860	Abb81860 Human neu

26	2271	86.8	445	7 ADN39350	Adn39350 Cancer/an
27	2262	86.5	445	4 AAE02851	Aae02851 Rheus ne
28	2262	86.5	445	4 ABB56370	Abb56370 Non-endog
29	2212	84.6	456	2 AAW37095	Aaw37095 Canis dom
30	2207	84.4	445	3 AAY52577	Aay52577 Chimeric
31	2036.5	77.8	456	2 AAR95940	Aar95940 Rat Y5 re
32	2036.5	77.8	456	2 AAW29446	Aaw29446 Rat hypot
33	2036.5	77.8	456	2 AAW29412	Aaw29412 Rat hypot
34	2036.5	77.8	456	2 AAW37092	Aaw37092 Rattus no
35	2036.5	77.8	456	2 AAY57460	Aay57460 Rat hypot
36	2036.5	77.8	456	5 ABB84496	Abb84496 Rat hypot
37	2036.5	77.5	445	2 AAW27603	Aaw27603 Rat neuro
38	2036.5	77.5	445	2 AAY14553	Aay14553 Rat neuro
39	2036.5	77.5	445	3 AAY52579	Aay52579 Rat NPY (
40	2026	77.4	466	2 AAW15233	Aaw15233 Mouse neu
41	2024.5	77.4	445	2 AAW15232	Aaw15232 Rat neuro
42	2022	77.3	466	8 ADO29565	Ado29565 Mouse GPC
43	2019.5	77.2	445	2 AAW27602	Aaw27602 Rat neuro
44	2019.5	77.2	445	2 AAY14552	Aay14552 Rat neuro
45	1899.5	72.6	394	4 AAE08005	Aae08005 Human chi

ALIGNMENTS

RESULT 1  
AAE08004  
ID AAE08004 standard; protein; 499 AA.  
XX AC AAE08004;  
XX DT 01-NOV-2001 (first entry)  
XX DE Human chimeric NPY5deltaY1CT receptor.

XX KW Neuropeptide Y; NPY receptor; G-protein-coupled transmembrane protein;  
transmembrane; TM domain; therapy; obesity; blood pressure; epilepsy;  
XX KW Huntington's disorder; Parkinson's disorder; eating disorder; seizure;  
locomotor; anxiety disorder; limbic seizure; tranquiliser; human;  
XX KW chimeric receptor.

XX OS Homo sapiens.  
XX PN WO200155103-A2.  
XX PD 02-AUG-2001.

XX PF 29-JAN-2001; 2001WO-US002804.

XX PR 28-JAN-2000; 2000US-0178652P.

XX PA (NEUR-) NEUROGEN CORP.

XX PI Bennett M, Brodbeck R, Krause J;

XX DR WPI; 2001-514543/56.

XX DX N-PSDB; RAD14736.

XX PT New chimeric receptor proteins comprising a single polypeptide chain of  
amino acids, useful as targets for drug actions, and as basis for drug  
discovery and development.

XX PS Claim 11; Page 51-53; 72pp; English.

XX CC The present invention relates to chimeric neuropeptide Y (NPY) receptors.  
The NPY receptors are G-protein-coupled transmembrane proteins with seven  
membrane spanning transmembrane (TM) domains. The compounds that modulate  
the activity of a NPY receptor is useful in the preparation of a  
medicament for treating conditions including obesity, high/low blood  
pressure, epilepsy, Huntington's and Parkinson's disorder and eating,  
seizure, locomotor and anxiety disorders. They can also be used as  
targets for drug actions, and as basis for drug discovery and  
development. The NPY5 receptor may have an anti-epileptic activity in the

CC control of limbic seizures. The present sequence is human chimeric  
CC NP5deltaV1CT receptor. The chimera comprises C-terminal intracellular  
CC domain of NP5 receptor replaced with C-terminal intracellular domain of  
CC NPY1 receptor  
XX  
SQ Sequence 499 AA;  
  
Query Match 100.0%; Score 2616; DB 4; Length 499;  
Best Local Similarity 100.0%; Pred. No. 7.6e-259;  
Matches 499; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
Qy 1 MSFYSKQDYNMDELDEYNNKTLATENNNTAATRNNSDFPVWDDYKSSVDDQLQYFLIGLYTF 60  
Db 1 MSFYSKQDYNMDELDEYNNKTLATENNNTAATRNNSDFPVWDDYKSSVDDQLQYFLIGLYTF 60  
  
Qy 61 VSLGFMGNLLILMALMKRKNQKTTVNFIGNLAFSDILVVLFCSPFTLTSVLLDQWFG 120  
Db 61 VSLGFMGNLLILMALMKRKNQKTTVNFIGNLAFSDILVVLFCSPFTLTSVLLDQWFG 120  
  
Qy 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVTLGFAI 180  
Db 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVTLGFAI 180  
  
Qy 181 CSPLPVPHSLVELQETFGSALLSSRYLCVSPSWSYRIAFITISLLVQVILPLVCLTVS 240  
Db 181 CSPLPVPHSLVELQETFGSALLSSRYLCVSPSWSYRIAFITISLLVQVILPLVCLTVS 240  
  
Qy 241 HTSVCRISICGLSKENRLEENEMINTLHPSKSGQVQLSGHKWSYFIKHHRRYS 300  
Db 241 HTSVCRISICGLSKENRLEENEMINTLHPSKSGQVQLSGHKWSYFIKHHRRYS 300  
  
Qy 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDHEL 360  
Db 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDHEL 360  
  
Qy 361 RVKRSVTRIKKRSRVFYRLTILVFAVSMPLHLFHVVTDFDNLISNRHFKLYVCIC 420  
Db 361 RVKRSVTRIKKRSRVFYRLTILVFAVSMPLHLFHVVTDFDNLISNRHFKLYVCIC 420  
  
Qy 421 HLLGMMSCCLNPILYGFNNGIQRLQFFNFCDFRSRDDYETIAMTHTDVSQTSLK 480  
Db 421 HLLGMMSCCLNPILYGFNNGIQRLQFFNFCDFRSRDDYETIAMTHTDVSQTSLK 480  
  
Qy 481 QASPVAFKKNNDNEKI 499  
Db 481 QASPVAFKKNNDNEKI 499  
  
RESULT 2  
ID ABG32254 standard; protein; 499 AA.  
XX AC ABG32254;  
XX DT 24-OCT-2002 (first entry)  
XX DE Neuropeptide Y5/Y1 chimera.  
XX Y5/Y1; carbazole derivative; neuropeptide Y-5; neurotransmission;  
KW heart failure; shock; cardiac hypertrophy; increased blood pressure;  
KW angina; myocardial infarction; renal failure; cerebral disease;  
KW neurodegeneration; epilepsy; stroke; depression; anxiety; schizophrenia;  
KW dementia; Crohn's disease; hypercholesterolaemia; hyperlipidemia;  
KW arteriosclerosis; anorexia; reproductive disorder; inflammatory disorder;  
KW respiratory disease; asthma; bronchoconstriction.  
XX  
OS Homo sapiens.  
OS Synthetic.  
OS Chimeric.  
XX  
FH Key Location/Qualifiers  
FT Region 1.442  
FT /label= Human Y-5 receptor fragment

FT Region 443.499  
FT /note= "Human Y-1 receptor fragment"  
XX  
PN US6399631-B1.  
XX  
PD 04-JUN-2002.  
XX  
PF 21-JUL-2000; 2000US-00620315.  
XX  
PR 23-JUL-1999; 99US-0145304P.  
XX  
PA (PFIZ ) PFIZER INC.  
XX  
PI Elliott RL, Griffith DA, Hammond M;  
XX  
DR WPI; 2002-588639/63.  
DR N-PSDB; ABK91148.  
XX  
PT New carbazole derivatives are neuropeptide Y-5 antagonists, useful for  
PT treating e.g. obesity, heart disease, central nervous system disorders,  
PT epilepsy and eating disorders.  
XX  
PS Disclosure; Col 21-24; 46pp; English.  
XX  
CC This invention relates to novel carbazole derivatives which may be used  
CC to treat conditions associated with neuropeptide Y-5 neurotransmission.  
CC The carbazole derivatives of the invention may be used as NY-5  
CC antagonists. The carbazole derivatives may be used for treating obesity  
CC and disorders arising from neuropeptide Y neurotransmission in dogs, cats  
CC and humans. They can be used to inhibit or alleviate conditions selected  
CC from: diseases or disorders pertaining to the heart, blood vessels or the  
CC renal system, such as heart failure, shock, cardiac hypertrophy,  
CC increased blood pressure, angina, myocardial infarction, peripheral  
CC vascular diseases and abnormal renal conditions such as impaired flow of  
CC fluid, abnormal mass transport and renal failure; conditions related to  
CC increased sympathetic nerve activity (e.g. during or after operations and  
CC surgery); cerebral diseases and diseases related to the CNS (e.g.  
CC neurodegeneration, epilepsy, stroke, depression, anxiety, schizophrenia  
CC and dementia), conditions related to pain or nociception, diseases  
CC related to abnormal gastrointestinal motility and secretion (e.g.  
CC different forms of ileus, urinary incontinence and Crohn's diseases),  
CC lipid-related disorders (including hypercholesterolaemia, hyperlipidemia  
CC and arteriosclerosis), abnormal drink and food intake disorders (e.g.  
CC anorexia, and metabolic disorders, diseases related to sexual dysfunction  
CC and reproductive disorders), inflammatory disorders, respiratory diseases  
CC (e.g. asthma and conditions related to asthma and bronchoconstriction),  
CC and diseases related to abnormal hormone releases (such as leutinising  
CC hormone, growth hormone, insulin and prolactin). The present sequence  
CC represents the Y5/Y1 chimeric protein used in an assay for neuropeptide Y  
CC (NPY) binding in the specification  
XX  
SQ Sequence 499 AA;  
  
Query Match 100.0%; Score 2616; DB 5; Length 499;  
Best Local Similarity 100.0%; Pred. No. 7.6e-259;  
Matches 499; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
Qy 1 MSFYSKQDYNMDELDEYNNKTLATENNNTAATRNNSDFPVWDDYKSSVDDQLQYFLIGLYTF 60  
Db 1 MSFYSKQDYNMDELDEYNNKTLATENNNTAATRNNSDFPVWDDYKSSVDDQLQYFLIGLYTF 60  
  
Qy 61 VSLGFMGNLLILMALMKRKNQKTTVNFIGNLAFSDILVVLFCSPFTLTSVLLDQWFG 120  
Db 61 VSLGFMGNLLILMALMKRKNQKTTVNFIGNLAFSDILVVLFCSPFTLTSVLLDQWFG 120  
  
Qy 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVTLGFAI 180  
Db 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVTLGFAI 180  
  
Qy 181 CSPLPVPHSLVELQETFGSALLSSRYLCVSPSWSYRIAFITISLLVQVILPLVCLTVS 240  
Db 181 CSPLPVPHSLVELQETFGSALLSSRYLCVSPSWSYRIAFITISLLVQVILPLVCLTVS 240

Qy	241	HTSVCRS	ISCGLSNKENRLEENEMINLT	LPSSKSGPQV	KLGGSHKWSY	SFTKGGHRRYS	300
Db	241	HTSVCRS	ISCGLSNKENRLEENEMINLT	LPSSKSGPQV	KLGGSHKWSY	SFTKGGHRRYS	300
Qy	301	KKTACVL	PAPERPSQENHSRILPENFGSV	RSQLSSSSKEIPGVPTCFEIK	KPENSDVHEL	360	
Db	301	KKTACVL	PAPERPSQENHSRILPENFGSV	RSQLSSSSKEIPGVPTCFEIK	KPENSDVHEL	360	
Qy	361	RVKRSVTRIK	KGRSRVFR	LTLLVFAVSNMPLHLFHVVTDF	NDNLINSRHF	KLVYCIC 420	
Db	361	RVKRSVTRIK	KGRSRVFR	LTLLVFAVSNMPLHLFHVVTDF	NDNLINSRHF	KLVYCIC 420	
Qy	421	HLLGMS	CCLPILYGLFNLNGIQRDLQ	RFENCFDRSRDDDET	YETAMSTHHTDV	SKTSUK 480	
Db	421	HLLGMS	CCLPILYGLFNLNGIQRDLQ	RFENCFDRSRDDDET	YETAMSTHHTDV	SKTSUK 480	
Qy	481	QASPVAF	FKINNNDNEKI	499			
Db	481	QASPVAF	FKINNNDNEKI	499			

RESULT 3  
AAR95939  
ID AAR95939 standard; protein; 455 AA.

Key	Location/Qualifiers
PH	51..77
FT	/label= I
FT	/note= "transmembrane domain I"
FT	88..110
FT	/label= II
FT	/note= "transmembrane domain II"
FT	126..147
FT	/label= III
FT	/note= "transmembrane domain III"
FT	166..187
FT	/label= IV
FT	/note= "transmembrane domain IV"
FT	220..242
FT	/label= V
FT	/note= "transmembrane domain V"
FT	380..403
FT	/label= VI
FT	/note= "transmembrane domain VI"
FT	416..438
FT	/label= VII
FT	/note= "transmembrane domain VII"

PN WO9616542-A1.

06-JUN-1996:

PF 01-DEC-1995; 95WO-US015646.

PR 02-DEC-1994; 94US-00349025.

PA (SYNA-) SYNAPTIC PHARM CORP.

PI Gerald CPG, Walker MW, Branchek T, Weinshank RL;

XX  
DR WPI; 1996-277371/28.

DR	N-PSDB; AAT30433.
XX	
PT	Modifying feeding behaviour using Y5 receptor (ant)agonists - increases
PT	or decreases food consumption, for treatment of e.g. obesity or bulimia.
XX	
PS	Claim 51; Fig 6; 235pp; English.
XX	
CC	Human hippocampal Y5 receptor (AAR95939) was identified as the homologue
CC	of rat hypothalamic Y5 receptor (AAR95940), isolated as an 'atypical Y1
CC	receptor'. The receptor belongs to the G protein-coupled receptor
CC	superfamily. It is encoded by a cDNA clone (see also AAT30433) that was
CC	isolated from a hippocampus cDNA library using rat Y5 receptor cDNA as
CC	probe. Recombinant rat Y5 receptor can be produced in prokaryotic or
CC	eukaryotic (e.g. COS, 293 or Sf9 insect) host cells. It is used to
CC	identify Y5 ligands (agonists and antagonists) that can be used to treat
CC	obesity, bulimia or anorexia, and to raise monoclonal antibodies useful
CC	in detecting Y5 receptor
XX	
XX	Sequence 455 AA:
XX	

RESULT 4  
AAW29447

AAW29447  
ID AAW29447 standard: protein; 455 AA.

AAW29447;

DT 25-MAR-2003 (revised)

DT 26-FEB-1998 (first entry)

Human hippocampal neuropeptide Y Y5 receptor.

KW Hippocampal; neuropeptide Y Y5 receptor; NPY Y5; antagonist;  
KW epileptic seizure; migraine; sleep disturbance; prophylaxis;  
KW eating disorder; quinazolin-2,4-diazirine.

XX Homo sapiens.  
OS



QY 121 KVMCHIMPFLQCVSLVSTLILISIAIVRYHMIKHPISNNLTANHGYFLIIATVWTLGFAI 180  
DB |||||  
121 KVMCHIMPFLQCVSLVSTLILISIAIVRYHMIKHPISNNLTANHGYFLIIATVWTLGFAI 180  
QY 181 CSPLPVFHSILVELQETFGSALLSSRYLCVESWPSDSYRIAFITISLLLVQYILPLVCLTVS 240  
DB |||||  
181 CSPLPVFHSILVELQETFGSALLSSRYLCVESWPSDSYRIAFITISLLLVQYILPLVCLTVS 240  
QY 241 HTSVCRSISCGLSNKENLEENEMINTLHPSKSGPOVKLSGSHKWSYFIKKHRRYS 300  
DB |||||  
241 HTSVCRSISCGLSNKENLEENEMINTLHPSKSGPOVKLSGSHKWSYFIKKHRRYS 300  
QY 301 KKTACVLPAPEPSPQENHSRILPENFGSVRSQSSSKFIPGVPTCFPIKPEENS DVHEL 360  
DB |||||  
301 KKTACVLPAPEPSPQENHSRILPENFGSVRSQSSSKFIPGVPTCFPIKPEENS DVHEL 360  
QY 361 RVKESVTRIKKRSRVFRLTILILVFAVSWMPLHLFHVVDNDNLISNRHFKLVYCIC 420  
DB |||||  
361 RVKESVTRIKKRSRVFRLTILILVFAVSWMPLHLFHVVDNDNLISNRHFKLVYCIC 420  
QY 421 HLLGWMSCCLNPILYGLNNGIQORDL 446  
DB |||||  
421 HLLGWMSCCLNPILYGLNNGIKADL 446

RESULT 6  
AAW37093  
ID AAW37093 standard; protein; 455 AA.

AC AAW37093;

XX 08-JUN-1998 (first entry)

DE Homo sapiens hippocampal Y5 receptor.

XX Hippocampal Y5 receptor; treatment; anorexia; bulimia; obesity;  
KW feeding behaviour; modification; atypical neuropeptide.

XX Homo sapiens.

XX WO9746250-A1.

XX 11-DEC-1997.

XX 04-JUN-1997; 97WO-US009504.

XX 04-JUN-1996; 96US-00668650.

XX 21-FEB-1997; 97US-00803600.

XX (SYNA-) SYNAPTIC PHARM CORP.

XX Gerald CP, Weinshank RL, Walker MW, Branchek T;

XX WPI; 1998-051901/05.

XX N-ESDB; AAV00622.

XX DNA encoding canine hypothalamic atypical neuro:peptide Y/peptide YY  
PT receptor, Y5 - useful for identification of compounds which are capable  
PT of modifying feeding behaviour.

XX Disclosure; Fig 6; 273pp; English.

XX The sequence is that of a hippocampal Y5 receptor (Y5-R). Y5-R can be  
XX used in processes to determine whether a chemical compound specifically  
XX binds to and activates or inhibits a Y5-R by measuring a second messenger  
XX response. The chemical compounds can be used to increase or reduce the  
XX activity of a Y5-R. In particular, inhibitors can be used to treat  
XX obesity and activators can be used to treat anorexia. Antagonists capable  
XX of alleviating (by decreasing the activity of Y5-R) an abnormality can be  
XX identified by administering a potential antagonist to a transgenic mammal  
XX as above, and determining whether the substance alleviates the physical  
XX and behavioural abnormalities displayed by the transgenic mammal as a  
XX result of overactivity of a Y5-R. Agonists can be identified in a similar

CC manner, but where the abnormality is alleviated by increasing the  
CC activity of Y5-R  
XX  
SQ Sequence 455 AA;

Query Match 88.9%; Score 2326; DB 2; Length 455;  
Best Local Similarity 99.6%; Pred. No. 3.7e-229;  
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 MSFYSKQDYNMDLEDEYNNKTATENNATATRNSDPPVDDYKSSVDDLOVFLIGLTYF 60  
DB |||||

DB 1 MSFYSKQDYNMDLEDEYNNKTATENNATATRNSDPPVDDYKSSVDDLOVFLIGLTYF 60  
DB |||||

QY 61 VSLGFGMGNLLILMALMKRNQKTTVNFILGNLAFSDILVVLFCSPFTLTSLVLDQWFG 120  
DB |||||

DB 61 VSLGFGMGNLLILMALMKRNQKTTVNFILGNLAFSDILVVLFCSPFTLTSLVLDQWFG 120  
DB |||||

QY 121 KVMCHIMPFLQCVSLVSTLILISIAIVRYHMIKHPISNNLTANHGYFLIIATVWTLGFAI 180  
DB |||||

DB 121 KVMCHIMPFLQCVSLVSTLILISIAIVRYHMIKHPISNNLTANHGYFLIIATVWTLGFAI 180  
DB |||||

QY 181 CSPLPVFHSILVELQETFGSALLSSRYLCVESWPSDSYRIAFITISLLLVQYILPLVCLTVS 240  
DB |||||

DB 181 CSPLPVFHSILVELQETFGSALLSSRYLCVESWPSDSYRIAFITISLLLVQYILPLVCLTVS 240  
DB |||||

QY 241 HTSVCRSISCGLSNKENLEENEMINTLHPSKSGPOVKLSGSHKWSYFIKKHRRYS 300  
DB |||||

DB 241 HTSVCRSISCGLSNKENLEENEMINTLHPSKSGPOVKLSGSHKWSYFIKKHRRYS 300  
DB |||||

QY 301 KKTACVLPAPEPSPQENHSRILPENFGSVRSQSSSKFIPGVPTCFPIKPEENS DVHEL 360  
DB |||||

DB 301 KKTACVLPAPEPSPQENHSRILPENFGSVRSQSSSKFIPGVPTCFPIKPEENS DVHEL 360  
DB |||||

QY 361 RVKESVTRIKKRSRVFRLTILILVFAVSWMPLHLFHVVDNDNLISNRHFKLVYCIC 420  
DB |||||

DB 361 RVKESVTRIKKRSRVFRLTILILVFAVSWMPLHLFHVVDNDNLISNRHFKLVYCIC 420  
DB |||||

QY 421 HLLGWMSCCLNPILYGLNNGIQORDL 446  
DB |||||

DB 421 HLLGWMSCCLNPILYGLNNGIKADL 446  
DB |||||

RESULT 7

AAW57461

ID AAW57461 standard; protein; 455 AA.

XX AAW57461;

XX 25-FEB-2000 (first entry)

XX Human hippocampal Y5 receptor.

XX Y5 receptor; feeding behaviour; food consumption; obesity; bulimia;  
KW anorexia; neuropeptide; genetic engineering.

XX Homo sapiens.

XX US5968819-A.

XX 19-OCT-1999.

XX 01-DEC-1995; 95US-00566096.

XX 02-DEC-1994; 94US-00349025.

XX (SYNA-) SYNAPTIC PHARM CORP.

XX Walker MW, Branchek T, Gerald CPG, Weinshank RL;

XX WPI; 1999-590415/50.

XX N-ESDB; AAZ39046.

XX Nucleic acid encoding a human neuropeptide Y receptor useful in genetic



Db 1 MSFYSKQDYNMDELDEYYNKTATENNATATRNDFPVMDDYKSSVDDQLQVFLGLYTF 60  
QY 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPPFTLTSLVLLDQWMFG 120  
Db 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPPFTLTSLVLLDQWMFG 120  
QY 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMIKHPISNNLTANHGYFLIATVWTLGPAI 180  
Db 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMIKHPISNNLTANHGYFLIATVWTLGPAI 180  
QY 181 CSPLPVFHSVLVELQTFGSALLSSRYLCVESWPSDSYRIAFITISLLLVQYILPLVCLTVS 240  
Db 181 CSPLPVFHSVLVELQTFGSALLSSRYLCVESWPSDSYRIAFITISLLLVQYILPLVCLTVS 240  
QY 241 HTSVCRSISCGLSNKENLEENEMINTLHPSKSGPOVKLSGSHKWSYFIKKHRRYS 300  
Db 241 HTSVCRSISCGLSNKENLEENEMINTLHPSKSGPOVKLSGSHKWSYFIKKHRRYS 300  
QY 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDVHEL 360  
Db 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDVHEL 360  
QY 361 RVKGSVTRIKKRSRSVFYRLTILILVFAVSWMPLHLPHVVTDFDNDNLISNRHFKLVYCIC 420  
Db 361 RVKGSVTRIKKRSRSVFYRLTILILVFAVSWMPLHLPHVVTDFDNDNLISNRHFKLVYCIC 420  
QY 421 HLLGMMSCCLNPILYGFLNNGIQRDL 446  
Db 421 HLLGMMSCCLNPILYGFLNNGIKADL 446

RESULT 9  
ABB84497  
ID ABB84497 standard; protein; 455 AA.  
XX AC ABB84497;  
XX DT 20-DEC-2002 (first entry)  
XX BE Human hippocampus Y5 receptor protein.  
XX KW Human; hippocampus; Y5; receptor; feeding behaviour; Y5 receptor;  
KW food consumption; metabolic; anorectic; antidepressant; tranquiliser;  
KW antimigraine; analgesic; hypotensive; cerebroprotective; cardiant;  
KW antidiarrhoeic; haemostatic; vaccine; anorexia; obesity; bulimia;  
KW sexual disorder; reproductive disorder; depression; anxiety; memory loss;  
KW migraine; pain; epileptic seizure; hypertension; cerebral haemorrhage;  
KW shock; congestive heart failure; sleeve disturbance; nasal congestion;  
KW diarrhoea.  
XX OS Homo sapiens.  
XX PN US2002103123-A1.  
XX PD 01-AUG-2002.  
XX PF 24-SEP-2001; 2001US-00962646.  
XX PR 02-DEC-1994; 94US-00349025.  
XX PR 01-DEC-1995; 95US-00566096.  
XX PR 25-NOV-1998; 98US-00200673.  
XX PA (SYNA-) SYNAPTIC PHARM CORP.  
XX PI Gerald CPG, Weinsbank RL, Walker MW, Branchek T;  
XX DR WPI; 2002-712388/77.  
XX DR N-PSDB; AAF88821.  
XX PT Modifying feeding behavior of subject, useful in treating feeding  
PT disorders, involves administering to subject Y5 receptor agonist or  
PT antagonist, to increase or decrease consumption of food by subject.  
XX

PS Claim 53; Fig 6; 102pp; English.  
XX This invention describes a novel method of modifying feeding behaviour of  
a subject which involves administering to the subject an amount of a  
compound which is a Y5 receptor agonist or antagonist effective to  
increase or decrease, respectively, the consumption of food by the  
subject so as to modify feeding behaviour of the subject. The product of  
the invention has metabolic, anorectic, antidepressant, tranquiliser,  
antimigraine, analgesic, hypotensive, cerebroprotective, cardiant,  
antidiarrhoeic and haemostatic activity and can be used in a vaccine. Y5  
receptor agonist or antagonist compounds are useful for treating a  
feeding disorder (e.g. anorexia, obesity or bulimia) in a subject. The  
pharmaceutical compositions described in the disclosure are useful for  
treating an abnormality alleviated by the inhibition or activation of Y5  
receptor, in a subject. Antibodies raised against the receptor are useful  
for detecting the presence of the receptor on the surface of a cell. The  
agonist of Y5 receptor is useful for treating an abnormality in a  
subject, where the abnormality includes anorexia, sexual/reproductive  
disorder, depression, anxiety, memory loss, migraine, pain, epileptic  
seizure, hypertension, cerebral haemorrhage, shock, congestive heart  
failure, sleeve disturbance, nasal congestion, and diarrhoea. This  
sequence represents the human hippocampus Y5 receptor described in the  
disclosure of the invention  
XX Sequence 455 AA;  
SQ  
Query Match 88.9%; Score 2326; DB 5; Length 455;  
Best Local Similarity 99.6%; Pred. No. 3.7e-229;  
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
QY 1 MSFYSKQDYNMDELDEYYNKTATENNATATRNDFPVMDDYKSSVDDQLQVFLGLYTF 60  
Db 1 MSFYSKQDYNMDELDEYYNKTATENNATATRNDFPVMDDYKSSVDDQLQVFLGLYTF 60  
QY 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPPFTLTSLVLLDQWMFG 120  
Db 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPPFTLTSLVLLDQWMFG 120  
QY 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMIKHPISNNLTANHGYFLIATVWTLGPAI 180  
Db 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMIKHPISNNLTANHGYFLIATVWTLGPAI 180  
QY 181 CSPLPVFHSVLVELQTFGSALLSSRYLCVESWPSDSYRIAFITISLLLVQYILPLVCLTVS 240  
Db 181 CSPLPVFHSVLVELQTFGSALLSSRYLCVESWPSDSYRIAFITISLLLVQYILPLVCLTVS 240  
QY 241 HTSVCRSISCGLSNKENLEENEMINTLHPSKSGPOVKLSGSHKWSYFIKKHRRYS 300  
Db 241 HTSVCRSISCGLSNKENLEENEMINTLHPSKSGPOVKLSGSHKWSYFIKKHRRYS 300  
QY 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDVHEL 360  
Db 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDVHEL 360  
QY 361 RVKGSVTRIKKRSRSVFYRLTILILVFAVSWMPLHLPHVVTDFDNDNLISNRHFKLVYCIC 420  
Db 361 RVKGSVTRIKKRSRSVFYRLTILILVFAVSWMPLHLPHVVTDFDNDNLISNRHFKLVYCIC 420  
QY 421 HLLGMMSCCLNPILYGFLNNGIQRDL 446  
Db 421 HLLGMMSCCLNPILYGFLNNGIKADL 446  
RESULT 10  
ABB79510  
ID ABB79510 standard; protein; 455 AA.  
XX AC ABB79510;  
XX DT 23-SEP-2002 (first entry)  
XX DE Human neuropeptide Y5 receptor.  
XX

KW Neuropeptide Y5; NPY; receptor; human; antagonist; anorectic;  
KW antiinflammatory; nootropic; neuroprotective; cardiovascular;  
KW hypotensive; antidiabetic; psychiatric; anticonvulsant; cardiant;  
KW cerebroprotective; antidepressant; haemostatic; tranquilizer;  
KW neuroleptic; analgesic; antianginal; nephrotropic; uropathic;  
KW gastrointestinal; antiasthmatic.  
XX Homo sapiens.  
XX WO200248152-A2.  
XX 20-JUN-2002.  
XX 11-DEC-2001; 2001WO-US047863.  
XX 12-DEC-2000; 2000US-0254990P.  
XX (NEUR-) NEUROGEN CORP.  
XX Bakthavatchalam R, Blum CA, Brielmann HL, Darrow JW;  
PI De Lombaert S, Hutchison A, Tran J, Zheng X, Elliott RL, Hammond M;  
XX WPI; 2002-547845/58.  
XX N-PSDB; ABN84252.  
XX New substituted spiro(isobenzofuran-1,4'-piperidin)-3-one or 3H-  
PT spiroisobenzofuran-1,4'-piperidine, useful for treating, e.g. eating  
PT disorder, psychiatric, cardiovascular disorder or diabetes.  
XX Example 675; Page 129-130; 134pp; English.  
XX The present sequence is the protein sequence for the human neuropeptide  
CC Y5 (NPY5) receptor. In an example from the invention, chimeric receptors  
CC including human NPY5 receptor sequences were constructed, and used to  
CC assay the binding activity of compounds of the invention. Substituted  
CC spiro(isobenzofuran-1,4'-piperidin)-3-ones and 3H-spiroisobenzofuran-1,4'-  
CC piperidines capable of modulating NPY5 receptor activity are provided.  
CC Such compounds may be used to modulate ligand binding to NPY5 receptors  
CC in vivo or in vitro, and are particularly useful in the treatment of a  
CC variety of disorders, e.g. eating disorders such as obesity or bulimia,  
CC psychiatric disorders, diabetes and cardiovascular disorders such as  
CC hypertension, in humans and animals  
XX Sequence 455 AA;  
Query Match 88.9%; Score 2326; DB 5; Length 455;  
Best Local Similarity 99.6%; Pred. No. 3.7e-229;  
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
QY 1 MSFYSKQDYNMDELDEYYNKTATENTTAATNSDPVWDDYKSSVDDLYQLGLYTF 60  
Db 1 MSFYSKQDYNMDELDEYYNKTATENTTAATNSDPVWDDYKSSVDDLYQLGLYTF 60  
QY 61 VSLIGFMGNLLIIMALKRKNQKTTNVLNGLAFSDILVLFCSPTFLTSVLLDQWFG 120  
Db 61 VSLIGFMGNLLIIMALKRKNQKTTNVLNGLAFSDILVLFCSPTFLTSVLLDQWFG 120  
QY 121 KVMCHIMPFLQCVSVLSTLILSIATVRYHMKHPISNNLTANHGFLIATVWTLGFAI 180  
Db 121 KVMCHIMPFLQCVSVLSTLILSIATVRYHMKHPISNNLTANHGFLIATVWTLGFAI 180  
QY 181 CSPLPVPHSLVELQETFGSALLSRVLCVSWPSDSYRIAFITSLILVQVILPLVCLTVS 240  
Db 181 CSPLPVPHSLVELQETFGSALLSRVLCVSWPSDSYRIAFITSLILVQVILPLVCLTVS 240  
QY 241 HTSVCRSISCGLNKENRLENEMINLTLPKSKSGQVVKLSGSHKWSYFIKRRRYS 300  
Db 241 HTSVCRSISCGLNKENRLENEMINLTLPKSKSGQVVKLSGSHKWSYFIKRRRYS 300  
QY 301 KKTACVLPAPERPSQENHSHRILPENFGSVRSQSSSKFTPGVPTCFEIKPEENSVDHEL 360  
Db 301 KKTACVLPAPERPSQENHSHRILPENFGSVRSQSSSKFTPGVPTCFEIKPEENSVDHEL 360

QY 361 RVKRSVTRIKKRSRSVFYRLTILILVFAVSWMLHLFHVVTDFDNLISNRHFKLYVCIC 420  
Db 361 RVKRSVTRIKKRSRSVFYRLTILILVFAVSWMLHLFHVVTDFDNLISNRHFKLYVCIC 420  
QY 421 HLLGMSSCCLNPILYGLFNNQIORDL 446  
Db 421 HLLGMSSCCLNPILYGLFNNQIORDL 446  
RESULT 11  
AAO23266  
ID AAO23266 standard; protein; 455 AA.  
XX AAO23266;  
XX 25-SEP-2003 (first entry)  
XX Human neuropeptide Y5 receptor (NPY5) protein.  
XX Neuropeptide Y5; receptor; NPY5; 2-cyclohexyl-4-phenyl-1H-imidazole; NPY;  
KW appetite regulation; feeding disorder; obesity; bulimia; diabetes;  
KW psychiatric; cardiovascular; hypertension; cerebral infarction; epilepsy;  
KW schizophrenia; depression; angina; sudden cardiac death; vasospasm;  
KW arrhythmia; urinary incontinence; Crohn's disease; asthma; neuroleptic;  
KW antiinflammatory; nootropic; vasotropic; anticonvulsant; uropathic;  
XX human.  
XX Homo sapiens.  
XX EP1306085-A1.  
XX 02-MAY-2003.  
XX 21-OCT-2002; 2002EP-00023469.  
XX 23-OCT-2001; 2001US-0348974P.  
XX (NEUR-) NEUROGEN CORP.  
XX Blum CA, Brielmann HL, De Lombaert S, Zheng X;  
PI WPI; 2003-543553/52.  
XX N-PSDB; AAL56583.  
XX New 2-cyclohexyl-4-phenyl-1H-imidazole derivatives are modulators of  
PT neuropeptide Y5 receptor activity, useful for treating e.g. eating or  
PT psychiatric disorders.  
XX Example 10; Page 39-41; 63pp; English.  
XX This invention relates to novel ligands (derivatives of 2-cyclohexyl-4-  
CC phenyl-1H-imidazole) for the neuropeptide Y5 (NPY5) receptor. The NPY5  
CC receptor mediates a variety of physiological effects and is involved in  
CC appetite regulation, hormone release and blood pressure. Ligands that  
CC modulate the NPY5 receptor inhibit or enhance NPY binding such that they  
CC can be used to treat a variety of conditions including feeding disorders  
CC (obesity and bulimia), psychiatric disorders, diabetes and cardiovascular  
CC diseases such as hypertension. Further uses relate to the treatment of  
CC cerebral infarction, epilepsy, schizophrenia, depression, angina, sudden  
CC cardiac death, vasospasm, arrhythmia, urinary incontinence, Crohn's  
CC disease and asthma. As such these ligands can be described variously as  
CC neuroleptic, antiinflammatory, nootropic, vasotropic, anticonvulsant and  
CC uropathic. This polypeptide sequence is the human neuropeptide Y5 (NPY5)  
CC receptor protien of the invention  
XX Sequence 455 AA;  
Query Match 88.9%; Score 2326; DB 6; Length 455;  
Best Local Similarity 99.6%; Pred. No. 3.7e-229;  
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
QY 1 MSFYSKQDYNMDELDEYYNKTATENTTAATNSDPVWDDYKSSVDDLYQLGLYTF 60



Db 1 MSFYSKQDYNMDELDEYNNKTLATENNNTAATRNSDFFPVWDDYKSSVDDLQVFLIGLYTF 60  
QY 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPPFTLTSVLLDQWVFG 120  
Db 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPPFTLTSVLLDQWVFG 120  
QY 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMKIPISNNLTANHGFIATVTLGFAI 180  
Db 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMKIPISNNLTANHGFIATVTLGFAI 180  
QY 181 CSPLPVFHSLVELQETFGSALLSSRYLCVESWPSDSYRIAFITISLLVQYILPLVCLTVS 240  
Db 181 CSPLPVFHSLVELQETFGSALLSSRYLCVESWPSDSYRIAFITISLLVQYILPLVCLTVS 240  
QY 241 HTSVCRSISCGLSNKENLEENEMINLTLPFSKSGPQVKLSGSHKWSYFPIKHHRRYS 300  
Db 241 HTSVCRSISCGLSNKENLEENEMINLTLPFSKSGPQVKLSGSHKWSYFPIKHHRRYS 300  
QY 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDVHEL 360  
Db 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDVHEL 360  
QY 361 RVKRSVTRIKKRSRVSFVRLTILILVFAVSNMPLHLFHVVDTFDNDNLISNRHFKLVYCIC 420  
Db 361 RVKRSVTRIKKRSRVSFVRLTILILVFAVSNMPLHLFHVVDTFDNDNLISNRHFKLVYCIC 420  
QY 421 HLLGMSCLNPILYGLNNGIQORDL 446  
Db 421 HLLGMSCLNPILYGLNNGIKADL 446

RESULT 12

ADO29564

ID ADO29564 standard; protein; 455 AA.

AC ADO29564;

DT 29-JUL-2004 (first entry)

SE Human GPCR NP5R, SEQ ID NO:666.

KW G protein-coupled receptor; GPCR; drug screening; diagnosis;  
KW transgenic mouse; neurological disorder; adrenal gland disorder;  
KW colon disorder; intestinal disorder; cardiovascular disorder;  
KW muscular disorder; blood disorder; immune disorder; bone disorder;  
KW joint disorder; metabolic disorder; nutritive disorder; cancer;  
KW kidney disorder; liver disorder; lung disorder; breast disorder;  
KW ovary disorder; uterus disorder; prostate disorder; testis disorder;  
KW skin disorder; stomach disorder; pancreas disorder; spleen disorder;  
KW thymus disorder; thyroid disorder; antiparkinsonian; antimanic;  
KW cytosolic; antiinflammatory; vasotropic; antidiabetic; antidiabetic;  
KW CNS; central nervous system; respiratory; antidiarrhoeic; antidiabetic;  
KW virucide; hepatotropic; antibacterial; antianaemic; antiseborrhoeic;  
KW dermatological; antitumor; antithyroid; antiallergic; anorectic;  
KW immunosuppressive; nephrotropic; gene therapy; GPCR modulator; human;  
KW receptor.

OS Homo sapiens.

XX WO2004040000-A2.

XX 13-MAY-2004.

XX 09-SEP-2003; 2003WO-US028226.

XX 09-SEP-2002; 2002US-0409303P.

PR 09-APR-2003; 2003US-0461329P.

XX (PRIM-) PRIMAL INC.

XX Gaitanaris GA, Bergmann JE, Gragerov A, Hohmann J, Li F;

PI Madisen L, McIlwain KL, Pavlova MN, Vassellatis D, Zeng H;

XX

DR WPI; 2004-390329/36.  
DR N-PSDB; ADO30001.  
XX Novel mammalian G protein coupled receptors, useful for identifying  
PT compounds that modulates diagnosing and treating disease condition  
PT associated with GPCR dysfunction e.g. autoimmune diseases, angina  
PT pectoris, Parkinson's disease.  
XX  
XX Claim 151; SEQ ID NO 666; 542pp; English.  
XX  
CC The invention relates to human and mouse G protein-coupled receptors  
CC (GPCRs) and nucleic acids encoding them. The invention also relates to  
CC sequences at least 90% identical to the GPCR proteins and nucleic acids  
CC of the invention; methods of treating, preventing or diagnosing diseases  
CC associated with GPCRs of the invention; methods of screening for  
CC compounds useful in the treatment of GPCR-related diseases; a transgenic  
CC mouse comprising a GPCR gene of the invention; a mouse comprising a  
CC mutation in a GPCR transgene or in an endogenous GPCR gene; cells derived  
CC from the transgenic mice; kits comprising several mice, each of which has  
CC a mutation in a different GPCR gene of the invention; and kits comprising  
CC probes which hybridise to GPCR polynucleotides of the invention. The  
CC invention further discloses variants of the GPCR polypeptides and vectors  
CC comprising a GPCR nucleic acid. The GPCR nucleic acids and proteins may  
CC be used in the diagnosis, treatment or prevention of a wide variety of  
CC diseases including neurological disorders (e.g., Alzheimer's disease,  
CC depression, diabetic neuropathy, Parkinson's disease or schizophrenia);  
CC disorders of the adrenal gland; disorders of the colon or intestine  
CC (e.g., Crohn's disease, diarrhoea, food poisoning or irritable bowel  
CC syndrome); cardiovascular disorders (e.g., angina, cardiac arrhythmia or  
CC myocardial infarction); muscular disorders; blood disorders (e.g.,  
CC anaemia or leukaemia); immune disorders (e.g., autoimmune disorders or  
CC AIDS); bone and joint disorders (e.g., osteoarthritis, rheumatoid  
CC arthritis, gout or osteoporosis); metabolic or nutritive disorders (e.g.,  
CC obesity, enzyme deficiency-related diseases or vitamin deficiency-related  
CC diseases); and disorders of the kidney, liver, lung, breast, ovary,  
CC uterus, prostate, testis, skin, stomach, pancreas, spleen, thymus and  
CC thyroid (e.g., cancers). The present sequence represents a GPCR of the  
CC invention. Note: The full sequence data for this patent did not form part  
CC of the printed specification; those sequences not shown were obtained in  
CC electronic format directly from WIPO at  
CC ftp.wipo.int/pub/published\_pct\_sequences.  
XX  
SQ Sequence 455 AA;

Query Match 88.9%; Score 2326; DB 8; Length 455;  
Best Local Similarity 99.6%; Pred. No. 3.7e-229;  
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 MSFYSKQDYNMDELDEYNNKTLATENNNTAATRNSDFFPVWDDYKSSVDDLQVFLIGLYTF 60  
Db 1 MSFYSKQDYNMDELDEYNNKTLATENNNTAATRNSDFFPVWDDYKSSVDDLQVFLIGLYTF 60  
QY 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPPFTLTSVLLDQWVFG 120  
Db 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPPFTLTSVLLDQWVFG 120  
QY 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMKIPISNNLTANHGFIATVTLGFAI 180  
Db 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMKIPISNNLTANHGFIATVTLGFAI 180  
QY 181 CSPLPVFHSLVELQETFGSALLSSRYLCVESWPSDSYRIAFITISLLVQYILPLVCLTVS 240  
Db 181 CSPLPVFHSLVELQETFGSALLSSRYLCVESWPSDSYRIAFITISLLVQYILPLVCLTVS 240  
QY 241 HTSVCRSISCGLSNKENLEENEMINLTLPFSKSGPQVKLSGSHKWSYFPIKHHRRYS 300  
Db 241 HTSVCRSISCGLSNKENLEENEMINLTLPFSKSGPQVKLSGSHKWSYFPIKHHRRYS 300  
QY 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDVHEL 360  
Db 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDVHEL 360  
QY 361 RVKRSVTRIKKRSRVSFVRLTILILVFAVSNMPLHLFHVVDTFDNDNLISNRHFKLVYCIC 420

Db	361	RVKRSVTRIKKRSRSVFYRLTILILVFAVSWMPLHLFHVVTDFDNLISNRHFKLVYCIC	420
QY	421	HLGMMSCCLNPILYGLNNGIORDL	446
Db	421	HLGMMSCCLNPILYGLNNGIKADL	446
RESULT 13			
AAE08016	ID AAE08016 standard; protein; 455 AA.		
XX	AC	AAE08016;	
XX	DT	01-NOV-2001 (first entry)	
XX	DE	African green monkey (AGM) neuropeptide Y5 (NPY5) receptor.	
XX	KW	Neuropeptide Y; NPY receptor; G-protein-coupled transmembrane protein;	
KW	KW	transmembrane; TM domain; therapy; obesity; blood pressure; epilepsy;	
KW	KW	Huntington's disorder; Parkinson's disorder; eating disorder; seizure;	
KW	KW	locomotor; anxiety disorder; limbic seizure; tranquilliser;	
KW	KW	african green monkey; AGM.	
XX	OS	Cercopithecus aethiops.	
XX	XX	WO200155103-A2.	
XX	XX	02-AUG-2001.	
PF	XX	29-JAN-2001; 2001WO-US002804.	
XX	XX	28-JAN-2000; 2000US-0178652P.	
XX	PA	(NEUR-) NEUROGEN CORP.	
PI	XX	Bennett M, Brodbeck R, Krause J;	
XX	XX	WPI; 2001-514543/56.	
DR	DR	NP-PSDB; AAD14746.	
XX	PT	New chimeric receptor proteins comprising a single polypeptide chain of	
PT	PT	amino acids, useful as targets for drug actions, and as basis for drug	
PT	PT	discovery and development.	
XX	XX	Example 2; Page 70-72; 72pp; English.	
XX	XX	The present invention relates to chimeric neuropeptide Y (NPY) receptors.	
CC	CC	The NPY receptors are G-protein-coupled transmembrane proteins with seven	
CC	CC	membrane spanning transmembrane (TM) domains. The compounds that modulate	
CC	CC	the activity of a NPY receptor is useful in the preparation of a	
CC	CC	medicament for treating conditions including obesity, high/low blood	
CC	CC	pressure, epilepsy, Huntington's and Parkinson's disorder and eating,	
CC	CC	seizure, locomotor and anxiety disorders. They can also be used as	
CC	CC	targets for drug actions, and as basis for drug discovery and	
CC	CC	development. The NPY5 receptor may have an anti-epileptic activity in the	
CC	CC	control of limbic seizures. The present sequence is african green monkey	
CC	CC	(AGM) NPY5 receptor	
XX	XX	Sequence 455 AA;	
Query Match 88.6%; Score 2317; DB 4; Length 455;			
Best Local Similarity 99.1%; Pred. No. 3.1e-228;			
Matches 442; Conservative 2; Mismatches 2; Indels 0; Gaps 0;			
QY	1	MSFYSKQDYNMDLEDEYKNTLATENNNTAATRNDFPVMDDYKSSVDDDLQYFLIGLYTF	60
Db	1	MSFYSKQDYNMDLEDEYKNTLATENNNTAATRNDFPVMDDYKSSVDDDLQYFLIGLYTF	60
QY	61	VSLLGFNGNLLILMALMKRNQKTTVNFNLGNLAFSDLLVLFCSPPFTLSVLLDQWFG	120
Db	61	VSLLGFNGNLLILMALMKRNQKTTVNFNLGNLAFSDLLVLFCSPPFTLSVLLDQWFG	120
QY	121	KWCHIMPELQCVSVLSTLILISIAIVRYHMIKHIPISNNLTANHGYFLIATVWTILGFAL	180
Db	121	KWCHIMPELQCVSVLSTLILISIAIVRYHMIKHIPISNNLTANHGYFLIATVWTILGFAL	180
QY	181	CSPLPVFVHSLVELQETFGSALLSSRYLCVESWPDSYRIAFTISLLLVQYILPLVCLTVS	240
Db	181	CSPLPVFVHSLVELQETFGSALLSSRYLCVESWPDSYRIAFTISLLLVQYILPLVCLTVS	240
QY	241	HTSVCRSISCGLSNKENRLEENEMINTLHPSKKSGPOVKLSGSHKWSYFIKKHRRYS	300
Db	241	HTSVCRSISCGLSNKENRLEENEMINTLHPSKKSGPOVKLSGSHKWSYFIKKHRRYS	300
QY	301	KKTACVLPAPERPSQENHSRIILPENFGSVRSQSSSKFIPGVPTCFEIKPENSDVHEL	360
Db	301	KKTACVLPAPERPSQENHSRIILPENFGSVRSQSSSKFIPGVPTCFEIKPENSDVHEL	360
QY	361	RVKRSVTRIKKRSRSVFYRLTILILVFAVSWMPLHLFHVVTDFDNLISNRHFKLVYCIC	420
Db	361	RVKRSVTRIKKRSRSVFYRLTILILVFAVSWMPLHLFHVVTDFDNLISNRHFKLVYCIC	420
QY	421	HLGMMSCCLNPILYGLNNGIORDL	446
Db	421	HLGMMSCCLNPILYGLNNGIKADL	446
RESULT 14			
AAE08012	ID AAE08012 standard; protein; 499 AA.		
XX	AC	AAE08012;	
XX	DT	01-NOV-2001 (first entry)	
XX	DE	Rat chimeric rNPY5deltarY1CT receptor.	
XX	KW	Neuropeptide Y; NPY receptor; G-protein-coupled transmembrane protein;	
KW	KW	transmembrane; TM domain; therapy; obesity; blood pressure; epilepsy;	
KW	KW	Huntington's disorder; Parkinson's disorder; eating disorder; seizure;	
KW	KW	locomotor; anxiety disorder; limbic seizure; tranquilliser; rat;	
KW	KW	chimeric receptor.	
XX	OS	Rattus sp.	
XX	XX	WO200155103-A2.	
XX	XX	02-AUG-2001.	
XX	XX	29-JAN-2001; 2001WO-US002804.	
XX	XX	28-JAN-2000; 2000US-0178652P.	
XX	PA	(NEUR-) NEUROGEN CORP.	
XX	PI	Bennett M, Brodbeck R, Krause J;	
XX	XX	WPI; 2001-514543/56.	
XX	PT	New chimeric receptor proteins comprising a single polypeptide chain of	
XX	PT	amino acids, useful as targets for drug actions, and as basis for drug	
XX	PT	discovery and development.	
XX	XX	Example 2; Page 64-65; 72pp; English.	
XX	XX	The present invention relates to chimeric neuropeptide Y (NPY) receptors.	
XX	XX	The NPY receptors are G-protein-coupled transmembrane proteins with seven	
XX	XX	membrane spanning transmembrane (TM) domains. The compounds that modulate	
XX	XX	the activity of a NPY receptor is useful in the preparation of a	
XX	XX	medicament for treating conditions including obesity, high/low blood	
XX	XX	pressure, epilepsy, Huntington's and Parkinson's disorder and eating,	
XX	XX	seizure, locomotor and anxiety disorders. They can also be used as	
XX	XX	targets for drug actions, and as basis for drug discovery and	
XX	XX	development. The NPY5 receptor may have an anti-epileptic activity in the	
XX	XX	control of limbic seizures. The present sequence is rat chimeric	
XX	XX	(AGM) NPY5 receptor	
XX	XX	Sequence 499 AA;	

CC rNPY5deltarY1CT receptor. The chimera comprises C-terminal intracellular  
CC domain of NPY5 receptor replaced with C-terminal intracellular domain of  
CC NPY1 receptor  
XX  
SQ Sequence 499 AA;

Query Match 87.4%; Score 2285.5; DB 4; Length 499;  
Best Local Similarity 88.9%; Pred. No. 6.1e-225;  
Matches 439; Conservative 22; Mismatches 30; Indels 3; Gaps 3;  
QY 7 QDYNMDELDEYNNKTLATENNATRNSTDPWDYKSSVDLQYFLIGLYTFVSLGPF 66  
DB 8 QDSSMEFLKEHFNFKTFVTENNATRNSTDPWDYKSSVDLQYFLIGLYTFVSLGPF 67  
QY 67 MGNLLILMALMKRNQKTTNVLGNLAFSDILVLFCSPTLTSVLLDQWFMGKVMCHI 126  
DB 68 MGNLLILMAVMKRNQKTTNVLGNLAFSDILVLFCSPTLTSVLLDQWFMGKVMCHI 127  
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QY 247 SISGLSKNENRLEENEMINLTLPSSKSGPOVLSGSHKMSYSFIKRRRYSKKTACV 306  
DB 248 SISGLSKNENRLEENEMINLTLPSSKSGPOVLSGSHKMSYSFIKRRRYSKKTACV 307  
QY 307 LPAPERPSQENHRSILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDHELVRKRSV 366  
DB 308 LPAPAGPSQGHVAV-PENPASVRSQSSSKFIPGVPTCFEIKPEENSVDHELVRKRSV 366  
QY 367 TRIKRSRSVYRLTILILVFAVSWMPLHFLHVTFDNDNLISNRHFKLVYICICHLGMM 426  
DB 367 TRIKRSRSVYRLTILILVFAVSWMPLHFLHVTFDNDNLISNRHFKLVYICICHLGMM 426  
QY 427 SCCLNPILYGLNNGI-ORDLQFFNFCDFRSDDDYETIAMSTWHTDVSKTSLKQASPV 485  
DB 427 SCCLNPILYGLNNGI-ORDLQFFNFCDFRSDDDYETIAMSTWHTDVSKTSLKQASPV 486  
QY 486 AFKINNNDNEKI 499  
DB 487 AFKISMN-DNEKI 499

RESULT 15  
AAE08010  
ID AAE08010 standard; protein; 508 AA.

AC AAE08010;  
XX  
DT 01-NOV-2001 (first entry)  
XX  
DE Mouse chimeric mNPY5deltamY1CT receptor.

XX Neuropeptide Y; NPY receptor; G-protein-coupled transmembrane protein;  
KW transmembrane; TM domain; therapy; obesity; blood pressure; epilepsy;  
KW Huntington's disorder; Parkinson's disorder; eating disorder; seizure;  
KW locomotor; anxiety disorder; limbic seizure; tranquilliser; mouse;  
KW chimeric receptor.

XX Mus sp.  
XX WO200155103-A2.  
XX  
XX  
PD 02-AUG-2001.

XX 29-JAN-2001; 2001WO-US002804.  
XX PR 28-JAN-2000; 2000US-0178652P.  
XX

PA (NEUR-) NEUROGEN CORP.  
XX  
PI Bennett M, Brodbeck R, Krause J;  
XX  
DR WPI; 2001-514543/56.

XX New chimeric receptor proteins comprising a single polypeptide chain of  
PT amino acids, useful as targets for drug actions, and as basis for drug  
XX discovery and development.  
XX  
PS Example 2; Page 61-62; 72pp; English.

XX The present invention relates to chimeric neuropeptide Y (NPY) receptors.  
CC The NPY receptors are G-protein-coupled transmembrane proteins with seven  
CC membrane spanning transmembrane (TM) domains. The compounds that modulate  
CC the activity of a NPY receptor is useful in the preparation of a  
CC medicament for treating conditions including obesity, high/low blood  
CC pressure, epilepsy, Huntington's and Parkinson's disorder and eating,  
CC seizure, locomotor and anxiety disorders. They can also be used as  
CC targets for drug actions, and as basis for drug discovery and  
CC development. The NPY5 receptor may have an anti-epileptic activity in the  
CC control of limbic seizures. The present sequence is mouse chimeric  
CC mNPY5deltamY1CT receptor. The chimera comprises C-terminal intracellular  
CC domain of NPY5 receptor replaced with C-terminal intracellular domain of  
CC NPY1 receptor  
XX

SQ Sequence 508 AA;

Query Match 87.0%; Score 2276.5; DB 4; Length 508;  
Best Local Similarity 85.9%; Pred. No. 5.2e-224;  
Matches 438; Conservative 24; Mismatches 25; Indels 23; Gaps 3;

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QY 110 TSVLLDQWFMGKVMCHIIMPFLQCVSVLSTLILISIAIVRYHMKIPISNNLTANHGYFL 169  
DB 121 TSVLLDQWFMGKVMCHIIMPFLQCVSVLSTLILISIAIVRYHMKIPISNNLTANHGYFL 180  
QY 170 IATVMTLGFACISPLPVFHSVLQETFGSALLSRYLCSVSPSDSYRIATISLLVQ 229  
DB 181 IATVMTLGFACISPLPVFHSVLQETFGSALLSRYLCSVSPSDSYRIATISLLVQ 240  
QY 230 YILPLVCLTVSHTSVCRSISGLSKNENRLEENEMINLTLPSSKSGPOVLSGSHKMSY 289  
DB 241 YILPLVCLTVSHTSVCRSISGLSKNENRLEENEMINLTLPSSKSGPOVLSGSHKMSY 300  
QY 290 SFIKKRRRYSKKTACVLPAPERPSQENHRSILPENFGSVRSQSSSKFIPGVPTCFEI 349  
DB 301 SFIRKRRRYSKKTACVLPAPAGPSQGHVAV-PENPASVRSQSSSKFIPGVPTCFEI 359  
QY 350 KPEENSVDHELVRKRSVYRLTILILVFAVSWMPLHFLHVTFDNDNLIS 409  
DB 360 KPEENSVDHELVRKRSVYRLTILILVFAVSWMPLHFLHVTFDNDNLIS 419  
QY 410 NRHFKLVYICICHLGMMSCCLNPILYGLNNGI-ORDLQFFNFCDFRSDDDYETIAMST 469  
DB 420 NRHFKLVYICICHLGMMSCCLNPILYGLNNGI-ORDLQFFNFCDFRSDDDYETIAMST 479  
QY 470 MHTDVSKTSLKQASPVAFKINNNDNEKI 499  
DB 480 MHTDVSKTSLKQASPVAFKISMN-DNEKI 508

Search completed: June 7, 2005, 17:55:39  
Job time : 167 secs



GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: June 7, 2005, 17:50:21 ; Search time 43 Seconds  
(without alignments)  
866.276 Million cell updates/sec

Title: US-09-771-956-9  
Perfect score: 2616  
Sequence: 1 MSFYSKQDYNMDLEDEYN.....KQASVAFKINNDNEKI 499

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

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4: /cgn2\_6/ptodata/1/iaa/6B\_COMB.pep.\*  
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6: /cgn2\_6/ptodata/1/iaa/backfiles1.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2326	88.9	455	1	US-08-349-025-4 Sequence 4, Appli
2	2326	88.9	455	2	US-08-566-096A-4 Sequence 4, Appli
3	2326	88.9	455	2	US-08-668-650B-4 Sequence 4, Appli
4	2326	88.9	455	3	US-09-200-673-4 Sequence 4, Appli
5	2326	88.9	455	4	US-09-194-895-4 Sequence 4, Appli
6	2326	88.9	455	4	US-10-013-846-7 Sequence 7, Appli
7	2326	88.9	455	4	US-09-447-907-4 Sequence 4, Appli
8	2326	88.9	455	4	US-09-962-646-4 Sequence 4, Appli
9	2326	88.9	456	5	PCT-US95-15646-4 Sequence 4, Appli
10	2271	86.8	445	2	US-08-630-118A-6 Sequence 6, Appli
11	2271	86.8	445	2	US-08-838-399-6 Sequence 6, Appli
12	2271	86.8	445	2	US-09-003-199-21 Sequence 21, Appli
13	2271	86.8	445	3	US-09-235-839-6 Sequence 6, Appli
14	2271	86.8	445	3	US-09-327-035-6 Sequence 6, Appli
15	2271	86.8	445	4	US-09-065-027-2 Sequence 13, Appli
16	2271	86.8	445	4	US-09-708-392-13 Sequence 4, Appli
17	2267	86.7	445	4	US-09-065-027-4 Sequence 4, Appli
18	2262	86.5	445	3	US-09-040-958-2 Sequence 2, Appli
19	2262	86.5	445	3	US-09-040-958-4 Sequence 4, Appli
20	2262	86.5	445	3	US-09-826-509-533 Sequence 533, App
21	2212	84.6	456	2	US-08-668-650B-14 Sequence 14, Appl
22	2212	84.6	456	4	US-09-194-895-14 Sequence 14, Appl
23	2212	84.6	456	4	US-09-447-907-14 Sequence 14, Appl
24	2207	84.4	456	2	US-09-003-199-2 Sequence 2, Appli
25	2036.5	77.8	456	1	US-08-349-025-2 Sequence 2, Appli
26	2036.5	77.8	456	2	US-08-566-096A-2 Sequence 2, Appli
27	2036.5	77.8	456	2	US-08-668-650B-2 Sequence 2, Appli

28	2036.5	77.8	456	3	US-09-200-673-2 Sequence 2, Appli
29	2036.5	77.8	456	4	US-09-194-895-2 Sequence 2, Appli
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31	2036.5	77.8	456	4	US-09-962-646-2 Sequence 2, Appli
32	2036.5	77.8	456	5	PCT-US95-15646-2 Sequence 2, Appli
33	2026.5	77.5	445	2	US-08-630-118A-4 Sequence 4, Appli
34	2026.5	77.5	445	2	US-08-838-399-4 Sequence 4, Appli
35	2026.5	77.5	445	2	US-09-003-199-23 Sequence 23, Appli
36	2026.5	77.5	445	3	US-09-235-839-4 Sequence 4, Appli
37	2026.5	77.5	445	3	US-09-327-035-4 Sequence 4, Appli
38	2026	77.4	466	4	US-09-065-027-8 Sequence 8, Appli
39	2024.5	77.4	445	4	US-09-065-027-6 Sequence 6, Appli
40	2019.5	77.2	445	2	US-08-630-118A-2 Sequence 2, Appli
41	2019.5	77.2	445	3	US-08-838-399-2 Sequence 2, Appli
42	2019.5	77.2	445	3	US-09-235-839-2 Sequence 2, Appli
43	2019.5	77.2	445	3	US-09-327-035-2 Sequence 2, Appli
44	1899.5	72.6	394	4	US-10-013-846-17 Sequence 17, Appli
45	1621	62.0	334	2	US-08-566-096A-6 Sequence 6, Appli

ALIGNMENTS

RESULT 1  
US-08-349-025-4  
; Sequence 4, Application US/08349025  
; Patent No. 5602024  
; GENERAL INFORMATION:  
; APPLICANT: Gerald, Christophe P.G.  
; APPLICANT: Walker, Mary W.  
; APPLICANT: Branchek, Theresa  
; APPLICANT: Weinschenk, Richard L.  
; TITLE OF INVENTION: DNA ENCODING A HYPOTHALAMIC ATYPICAL  
; TITLE OF INVENTION: NEUROPEPTIDE Y/PEPTIDE YY RECEPTOR (Y5) AND USES THEREOF  
; NUMBER OF SEQUENCES: 4  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Cooper & Dunham  
; STREET: 1185 Avenue of the Americas  
; CITY: New York  
; STATE: New York  
; COUNTRY: United States of America  
; ZIP: 10036  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/349,025  
; FILING DATE:  
; CLASSIFICATION: 514  
; ATTORNEY/AGENT INFORMATION:  
; NAME: White, John P.  
; REGISTRATION NUMBER: 28,678  
; REFERENCE/DOCKET NUMBER: 1795/46166  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (212) 278-0400  
; TELEFAX: (212) 391-0525  
; TELEX: 422523 COOP UI  
; INFORMATION FOR SEQ ID NO: 4:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 455 amino acids  
; TYPE: amino acid  
; TOPOLOGY: linear  
; MOLECULE TYPE: protein  
; US-08-349-025-4

Query Match 88.9%; Score 2326; DB 1; Length 455;  
Best Local Similarity 99.6%; Pred. No. 1.5e-168;  
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
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Db 1 MSFYKQDYNMDELDEYYNKTATENNNTAATNSDFPVWDDYKSSVDDLYQYFLIGLYTF 60  
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Db 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVWLFCSPTLTSLVLLDQWMEF 120  
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RESULT 2  
US-08-566-096A-4  
; Sequence 4, Application US/08566096A  
; Patent No. 5968819  
; GENERAL INFORMATION:  
; APPLICANT: Gerald, Christophe P.G.  
; APPLICANT: Walker, Mary W.  
; APPLICANT: Branchek, Theresa  
; TITLE OF INVENTION: METHODS OF MODIFYING FEEDING BEHAVIOR,  
; TITLE OF INVENTION: COMPOUNDS USEFUL IN SUCH METHODS, AND DNA ENCODING A HYPOTHALA  
; TITLE OF INVENTION: NEUROPEPTIDE Y/PEPTIDE YY RECEPTOR (Y5) AND USES THEREOF  
; NUMBER OF SEQUENCES: 12  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Cooper & Dunham LLP  
; STREET: 1185 Avenue of the Americas  
; CITY: New York  
; STATE: New York  
; COUNTRY: United States of America  
; ZIP: 10036  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA: US/08/566,096A  
; FILING DATE:  
; CLASSIFICATION: 435  
; ATTORNEY/AGENT INFORMATION:  
; NAME: White, John P.  
; REGISTRATION NUMBER: 28,678  
; REFERENCE/DOCKET NUMBER: 1795/46166-B  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (212) 278-0400  
; TELEFAX: (212) 391-0525  
; INFORMATION FOR SEQ ID NO: 4:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 455 amino acids  
; TYPE: amino acid  
; TOPOLOGY: linear  
; MOLECULE TYPE: protein

US-08-566-096A-4  
Query Match 88.9%; Score 2326; DB 2; Length 455;  
Best Local Similarity 99.6%; Pred. No. 1.5e-168;  
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
QY 1 MSFYKQDYNMDELDEYYNKTATENNNTAATNSDFPVWDDYKSSVDDLYQYFLIGLYTF 60  
Db 1 MSFYKQDYNMDELDEYYNKTATENNNTAATNSDFPVWDDYKSSVDDLYQYFLIGLYTF 60  
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Db 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVWLFCSPTLTSLVLLDQWMEF 120  
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Db 421 HLLGMSCCLNPILYGLFNNGIORDL 446

RESULT 3  
US-08-668-650B-4  
; Sequence 4, Application US/08668650B  
; Patent No. 5989920  
; GENERAL INFORMATION:  
; APPLICANT: Gerald, Christophe P.G.  
; APPLICANT: Waker, Mary W.  
; APPLICANT: Branchek, Theresa  
; APPLICANT: Weinshank, Richard L.  
; TITLE OF INVENTION: Methods of Modifying Feeding Behavior,  
; TITLE OF INVENTION: Compounds Useful in Such Methods, And DNA Encoding a  
; TITLE OF INVENTION: Hypothalamic Atypical Neuropeptide Y/Peptide YY Receptor  
; TITLE OF INVENTION:  
; NUMBER OF SEQUENCES: 24  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Cooper & Dunham LLP  
; STREET: 1185 Avenue of the Americas  
; CITY: New York  
; STATE: NY  
; COUNTRY: U.S.A.  
; ZIP: 10036  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.30  
; CURRENT APPLICATION DATA: US/08/668,650B  
; APPLICATION NUMBER: 04-JUN-1996  
; FILING DATE: 536  
; CLASSIFICATION:  
; ATTORNEY/AGENT INFORMATION:  
; NAME: White Esq., John P.  
; REGISTRATION NUMBER: 28,678  
; REFERENCE/DOCKET NUMBER: 1795/46166C

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US-09-200-673-4
TELECOMMUNICATION INFORMATION:
; TELEPHONE: 212-278-0400
; TELEFAX: 212-391-0525
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 455 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-668-650B-4
Query Match 88.9%; Score 2326; DB 2; Length 455;
Best Local Similarity 99.6%; Pred. No. 1.5e-168;
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 MSFYSKQDYNMDELDEYYNKTATNTAATNSDFPVWDDYKSSVDDQLQYFLIGLYTF 60
DB 1 MSFYSKQDYNMDELDEYYNKTATNTAATNSDFPVWDDYKSSVDDQLQYFLIGLYTF 60
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DB 421 HLLGMSCCLNPILYGLFNNGIKADL 446

RESULT 5
US-09-194-895-4
; Sequence 4, Application US/09194895
; Patent No. 6531287
; GENERAL INFORMATION:
; APPLICANT: Gerald, Christophe P.G.
; APPLICANT: Weinsbank, Richard L.
; APPLICANT: Walker, Mary M.
; APPLICANT: Branchek, Theresa
; TITLE OF INVENTION: Methods of Modifying Feeding Behavior, Compounds Useful
; TITLE OF INVENTION: In Such Methods, and DNA Encoding A Hypothalamic
; TITLE OF INVENTION: Atypical Neuropeptide Y/Peptide YY Receptor (Y5)
; FILE REFERENCE: 1795-46166-D-PCT-US/JPW/BJA
; CURRENT APPLICATION NUMBER: US/09/194,895
; CURRENT FILING DATE: 1999-09-27
; PRIOR APPLICATION NUMBER: PCT/US97/09504
; PRIOR FILING DATE: 1997-06-04
; NUMBER OF SEQ ID NOS: 24
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
; LENGTH: 455
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-194-895-4
Query Match 88.9%; Score 2326; DB 4; Length 455;
Best Local Similarity 99.6%; Pred. No. 1.5e-168;
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 MSFYSKQDYNMDELDEYYNKTATNTAATNSDFPVWDDYKSSVDDQLQYFLIGLYTF 60
DB 1 MSFYSKQDYNMDELDEYYNKTATNTAATNSDFPVWDDYKSSVDDQLQYFLIGLYTF 60
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DB 121 KVMCHIMPFLQCVSLVSTLILISIAIVRYHMIKHPISNNLTANHGCFYFIATVWTLGFAI 180
QY 181 CSPLPVPHSLVELQETFGSALLSSRYLVCVESWPSDSYRIAFITISLLLVQYILPLVCLTVS 240
DB 181 CSPLPVPHSLVELQETFGSALLSSRYLVCVESWPSDSYRIAFITISLLLVQYILPLVCLTVS 240
QY 241 HTSVCRSISCGLSNKENRLEENEMINLTLPKSKGPOVKLSGSHKWSYFIIKKHRRYS 300
DB 241 HTSVCRSISCGLSNKENRLEENEMINLTLPKSKGPOVKLSGSHKWSYFIIKKHRRYS 300
QY 301 KKTACVLPAPEPSQENHSRIIPENFGSVRSQSSSKFIPGVPTCFEIKPENSDVHEL 360
DB 301 KKTACVLPAPEPSQENHSRIIPENFGSVRSQSSSKFIPGVPTCFEIKPENSDVHEL 360
QY 361 RVKRSVTRIKKRSRSVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLISNRHFKLVYCIC 420
DB 361 RVKRSVTRIKKRSRSVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLISNRHFKLVYCIC 420
QY 421 HLLGMSCCLNPILYGLFNNGIORDL 446
DB 421 HLLGMSCCLNPILYGLFNNGIKADL 446

RESULT 4
US-09-200-673-4
; Sequence 4, Application US/09200673A
; Patent No. 6316203
; GENERAL INFORMATION:
; APPLICANT: Gerald, Christophe P.G.
; APPLICANT: Weinsbank, Richard L.
; APPLICANT: Walker, Mary W.
; APPLICANT: Branchek, Theresa
; TITLE OF INVENTION: Methods of Modifying Feeding Behavior, Compounds Useful
; TITLE OF INVENTION: In Such Methods, and DNA Encoding A Hypothalamic
; TITLE OF INVENTION: Atypical Neuropeptide Y/Peptide YY Receptor (Y5)
; FILE REFERENCE: 46166-BZ/JPW
; CURRENT APPLICATION NUMBER: US/09/200,673A
; CURRENT FILING DATE: 1998-11-25
; EARLIER APPLICATION NUMBER: 08/566,096
; EARLIER FILING DATE: 1995-12-01
; EARLIER APPLICATION NUMBER: 08/349,025
; EARLIER FILING DATE: 1994-12-02
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
; LENGTH: 455
; TYPE: PRT
; ORGANISM: Homo sapiens

```

Db 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPTLTSLVLLDQWVFG 120  
QY 121 KVMCHIMPFOCVSVLSTLILISIAIVRYHMIKHPISNNLTANHGYPFLIATVWTLGFAI 180  
Db 121 KVMCHIMPFOCVSVLSTLILISIAIVRYHMIKHPISNNLTANHGYPFLIATVWTLGFAI 180  
QY 181 CSPLPVPHSLVELOETFGSALLSSRYLCVESWPSDSYRIAFTISLLVQVILPLVCLTVS 240  
Db 181 CSPLPVPHSLVELOETFGSALLSSRYLCVESWPSDSYRIAFTISLLVQVILPLVCLTVS 240  
QY 241 HTSVCRSISCGLSNKENRLEENEMINLTLPSSKSGPQVKLSGSHKWSYFIIKHHRRYS 300  
Db 241 HTSVCRSISCGLSNKENRLEENEMINLTLPSSKSGPQVKLSGSHKWSYFIIKHHRRYS 300  
QY 301 KKTACVLPAPERPSQENHSRIIPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDHEL 360  
Db 301 KKTACVLPAPERPSQENHSRIIPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDHEL 360  
QY 361 RVKRSVTRIKKRSRVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLISNRHFKLVYIC 420  
Db 361 RVKRSVTRIKKRSRVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLISNRHFKLVYIC 420  
QY 421 HLLGMMSCCLNPILYGFLLNGIORDL 446  
Db 421 HLLGMMSCCLNPILYGFLLNGIKADL 446

RESULT 6  
US-10-013-846-7  
; Sequence 7, Application US/10013846  
; Patent No. 6566367  
; GENERAL INFORMATION:  
; APPLICANT: Bakthavatchalam, Rajagopal  
; APPLICANT: Blum, Charles A  
; APPLICANT: Brielmann, Harry L  
; APPLICANT: Darrow, James W  
; APPLICANT: De Lombaert, Stephane  
; APPLICANT: Hutchison, Alan  
; APPLICANT: Tran, Jennifer  
; APPLICANT: Zheng, Xiaozhang  
; APPLICANT: Elliott, Richard L  
; APPLICANT: Hammond, Marlys  
; TITLE OF INVENTION: Spirolicobenzofuran-1,4'-piperidin-3-ones and  
; TITLE OF INVENTION: 3H-spirobenzofuran-1,4'-piperidines  
; FILE REFERENCE: N00.2001  
; CURRENT APPLICATION NUMBER: US/10/013,846  
; PRIOR FILING DATE: 2001-12-11  
; PRIOR FILING DATE: 2001-12-11  
; PRIOR FILING DATE: 2000-12-12  
; NUMBER OF SEQ ID NOS: 17  
; SOFTWARE: Patent in version 3.1  
; SEQ ID NO 7  
; LENGTH: 455  
; TYPE: PRT  
; ORGANISM: homosapiens  
US-10-013-846-7

Query Match 88.9%; Score 2326; DB 4; Length 455;  
Best Local Similarity 99.6%; Pred. No. 1.5e-168;  
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
QY 1 MSFYSKQDYNMDLEDEYNNKTLATENNTAATNSDPVWDDYKSSVDDLYQFLIGLYTF 60  
Db 1 MSFYSKQDYNMDLEDEYNNKTLATENNTAATNSDPVWDDYKSSVDDLYQFLIGLYTF 60  
QY 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPTLTSLVLLDQWVFG 120  
Db 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPTLTSLVLLDQWVFG 120  
QY 121 KVMCHIMPFOCVSVLSTLILISIAIVRYHMIKHPISNNLTANHGYPFLIATVWTLGFAI 180  
Db 121 KVMCHIMPFOCVSVLSTLILISIAIVRYHMIKHPISNNLTANHGYPFLIATVWTLGFAI 180

QY 181 CSPLPVPHSLVELOETFGSALLSSRYLCVESWPSDSYRIAFTISLLVQVILPLVCLTVS 240  
Db 181 CSPLPVPHSLVELOETFGSALLSSRYLCVESWPSDSYRIAFTISLLVQVILPLVCLTVS 240  
QY 241 HTSVCRSISCGLSNKENRLEENEMINLTLPSSKSGPQVKLSGSHKWSYFIIKHHRRYS 300  
Db 241 HTSVCRSISCGLSNKENRLEENEMINLTLPSSKSGPQVKLSGSHKWSYFIIKHHRRYS 300  
QY 301 KKTACVLPAPERPSQENHSRIIPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDHEL 360  
Db 301 KKTACVLPAPERPSQENHSRIIPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDHEL 360  
QY 361 RVKRSVTRIKKRSRVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLISNRHFKLVYIC 420  
Db 361 RVKRSVTRIKKRSRVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLISNRHFKLVYIC 420  
QY 421 HLLGMMSCCLNPILYGFLLNGIORDL 446  
Db 421 HLLGMMSCCLNPILYGFLLNGIKADL 446

RESULT 7  
US-09-447-907-4  
; Sequence 4, Application US/09447907  
; Patent No. 6645774  
; GENERAL INFORMATION:  
; APPLICANT: Gerald, Christophe P.G.  
; APPLICANT: Weinshank, Richard L  
; APPLICANT: Walker, Mary W  
; APPLICANT: Branchek, Theresa  
; TITLE OF INVENTION: Methods of Modifying Feeding Behavior, Compounds Useful in Such Me  
; TITLE OF INVENTION: and DNA Encoding A Hypothalamic Atypical Neuropeptide Y/Peptide Y  
; FILE REFERENCE: 1795-46166CA  
; CURRENT APPLICATION NUMBER: US/09/447,907  
; PRIOR FILING DATE: 1999-11-23  
; PRIOR APPLICATION NUMBER: 08/668,650  
; PRIOR FILING DATE: 1996-06-04  
; NUMBER OF SEQ ID NOS: 24  
; SOFTWARE: Patent in version 3.1  
; SEQ ID NO 4  
; LENGTH: 455  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Human Y5 cDNA clone  
US-09-447-907-4

Query Match 88.9%; Score 2326; DB 4; Length 455;  
Best Local Similarity 99.6%; Pred. No. 1.5e-168;  
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
QY 1 MSFYSKQDYNMDLEDEYNNKTLATENNTAATNSDPVWDDYKSSVDDLYQFLIGLYTF 60  
Db 1 MSFYSKQDYNMDLEDEYNNKTLATENNTAATNSDPVWDDYKSSVDDLYQFLIGLYTF 60  
QY 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPTLTSLVLLDQWVFG 120  
Db 61 VSLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPTLTSLVLLDQWVFG 120  
QY 121 KVMCHIMPFOCVSVLSTLILISIAIVRYHMIKHPISNNLTANHGYPFLIATVWTLGFAI 180  
Db 121 KVMCHIMPFOCVSVLSTLILISIAIVRYHMIKHPISNNLTANHGYPFLIATVWTLGFAI 180  
QY 181 CSPLPVPHSLVELOETFGSALLSSRYLCVESWPSDSYRIAFTISLLVQVILPLVCLTVS 240  
Db 181 CSPLPVPHSLVELOETFGSALLSSRYLCVESWPSDSYRIAFTISLLVQVILPLVCLTVS 240  
QY 241 HTSVCRSISCGLSNKENRLEENEMINLTLPSSKSGPQVKLSGSHKWSYFIIKHHRRYS 300  
Db 241 HTSVCRSISCGLSNKENRLEENEMINLTLPSSKSGPQVKLSGSHKWSYFIIKHHRRYS 300  
QY 301 KKTACVLPAPERPSQENHSRIIPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDHEL 360



Db 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHEL 360  
Qy 361 RVKRSVTRIKKRSRVFVRLTLLILVFAVSNMPLHLFHVVTDFNDNLISNRHFKLVYCIC 420  
Db 361 RVKRSVTRIKKRSRVFVRLTLLILVFAVSNMPLHLFHVVTDFNDNLISNRHFKLVYCIC 420  
Qy 421 HLLGMSCCLNPILYGFLLNGIQRDL 446  
Db 421 HLLGMSCCLNPILYGFLLNGIKADL 446

RESULT 8  
US-09-962-646-4  
; Sequence 4, Application US/09962646  
; Patent No. 6818445  
; GENERAL INFORMATION:  
; APPLICANT: GERALD, CHRISTOPHE P.G.  
; APPLICANT: WEINSHANK, RICHARD L.  
; APPLICANT: WALKER, MARY W  
; APPLICANT: BRANCHER, THERESA  
; TITLE OF INVENTION: MODIFYING FEEDING BEHAVIOR, COMPOUNDS USEFUL IN SUCH METHODS, AND  
; FILE REFERENCE: 1795/46166BZA  
; CURRENT APPLICATION NUMBER: US/09/962,646  
; PRIOR FILING DATE: 2001-09-24  
; PRIOR APPLICATION NUMBER: 09/200,673  
; PRIOR FILING DATE: 1998-11-25  
; PRIOR APPLICATION NUMBER: 08/566,096  
; PRIOR FILING DATE: 1995-12-01  
; PRIOR APPLICATION NUMBER: 08/349,025  
; PRIOR FILING DATE: 1994-12-01  
; NUMBER OF SEQ ID NOS: 17  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 4  
; LENGTH: 455  
; TYPE: PRT  
; ORGANISM: Homo Sapiens  
US-09-962-646-4

Query Match 88.9%; Score 2326; DB 4; Length 455;  
Best Local Similarity 99.6%; Pred. No. 1.5e-168;  
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MSFYSKQDYNMDELDEYNTKTATENNATATNSDFPVDYKSSVDDLOVFLIGLYTF 60  
Db 1 MSFYSKQDYNMDELDEYNTKTATENNATATNSDFPVDYKSSVDDLOVFLIGLYTF 60

Qy 61 VSLGFGMGNLLILMALMKRKNQKTTVNFIGNLAFSDILVFLFCSPTLTSLVLLDQWMFG 120  
Db 61 VSLGFGMGNLLILMALMKRKNQKTTVNFIGNLAFSDILVFLFCSPTLTSLVLLDQWMFG 120

Qy 121 KVMCHIMPFCQVSVLSTLLISIAIVRYHMIKHPISNNLTANHGYFLIATVTLGPAI 180  
Db 121 KVMCHIMPFCQVSVLSTLLISIAIVRYHMIKHPISNNLTANHGYFLIATVTLGPAI 180

Qy 181 CSPLPVHSLVLEQTFGSALLSRYLCSWPDSYRIATFISLLVQYILPLVCLTVS 240  
Db 181 CSPLPVHSLVLEQTFGSALLSRYLCSWPDSYRIATFISLLVQYILPLVCLTVS 240

Qy 241 HTSVCRSISCGLSKNENRLEENMINLTLPFSKSGQVKLSGSHKWSYSFIKHHRRYS 300  
Db 241 HTSVCRSISCGLSKNENRLEENMINLTLPFSKSGQVKLSGSHKWSYSFIKHHRRYS 300

Qy 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHEL 360  
Db 361 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHEL 360

Qy 421 HLLGMSCCLNPILYGFLLNGIQRDL 446

Db 421 HLLGMSCCLNPILYGFLLNGIKADL 446

RESULT 9  
PCT-US95-15646-4  
; Sequence 4, Application PC/TUS9515646  
; GENERAL INFORMATION:  
; APPLICANT: Synaptic Pharmaceutical Corporation  
; TITLE OF INVENTION: METHODS OF MODIFYING FEEDING BEHAVIOR, COMPOUNDS  
; TITLE OF INVENTION: USEFUL IN SUCH METHODS, AND DNA ENCODING A HYPOTHALAMIC ATYPIC  
; TITLE OF INVENTION: Y/PEPTIDE YY RECEPTOR (Y5) AND USES THEREOF  
; NUMBER OF SEQUENCES: 12  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Cooper & Dunham LLP  
; STREET: 1185 Avenue of the Americas  
; CITY: New York  
; STATE: New York  
; COUNTRY: United States of America  
; ZIP: 10036  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: PCT/US95/15646  
; FILING DATE:  
; CLASSIFICATION:  
; ATTORNEY/AGENT INFORMATION:  
; NAME: White, John P.  
; REGISTRATION NUMBER: 28,678  
; REFERENCE/DOCKET NUMBER: 1795/46166-A-PCT  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (212) 278-0400  
; TELEFAX: (212) 391-0525  
; INFORMATION FOR SEQ ID NO: 4:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 456 amino acids  
; TYPE: amino acid  
; TOPOLOGY: linear  
; MOLECULE TYPE: protein  
PCT-US95-15646-4

Query Match 88.9%; Score 2326; DB 5; Length 456;  
Best Local Similarity 99.6%; Pred. No. 1.5e-168;  
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MSFYSKQDYNMDELDEYNTKTATENNATATNSDFPVDYKSSVDDLOVFLIGLYTF 60  
Db 1 MSFYSKQDYNMDELDEYNTKTATENNATATNSDFPVDYKSSVDDLOVFLIGLYTF 60

Qy 61 VSLGFGMGNLLILMALMKRKNQKTTVNFIGNLAFSDILVFLFCSPTLTSLVLLDQWMFG 120  
Db 61 VSLGFGMGNLLILMALMKRKNQKTTVNFIGNLAFSDILVFLFCSPTLTSLVLLDQWMFG 120

Qy 121 KVMCHIMPFCQVSVLSTLLISIAIVRYHMIKHPISNNLTANHGYFLIATVTLGPAI 180  
Db 121 KVMCHIMPFCQVSVLSTLLISIAIVRYHMIKHPISNNLTANHGYFLIATVTLGPAI 180

Qy 181 CSPLPVHSLVLEQTFGSALLSRYLCSWPDSYRIATFISLLVQYILPLVCLTVS 240  
Db 181 CSPLPVHSLVLEQTFGSALLSRYLCSWPDSYRIATFISLLVQYILPLVCLTVS 240

Qy 241 HTSVCRSISCGLSKNENRLEENMINLTLPFSKSGQVKLSGSHKWSYSFIKHHRRYS 300  
Db 241 HTSVCRSISCGLSKNENRLEENMINLTLPFSKSGQVKLSGSHKWSYSFIKHHRRYS 300

Qy 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHEL 360  
Db 301 KKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHEL 360

Qy 361 RVKRSVTRIKKRSRVFVRLTLLILVFAVSNMPLHLFHVVTDFNDNLISNRHFKLVYCIC 420

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Db 361 RVRKSRTRIKGRSRVYRUTLILVFAVSWMPHLHFHVVDNDNLISNRHFKLVYC 420
QY 421 HLLGMMSCCLNPILYGLFNNGIQDRL 446
Db 421 HLLGMMSCCLNPILYGLFNNGIKADL 446

RESULT 10
US-08-630-118A-6
; Sequence 6, Application US/08630118A
; Patent No. 5919901
; GENERAL INFORMATION:
; APPLICANT: Hu Ph.D., Yinghe
; APPLICANT: McCaleb Ph.D., Michael L.
; APPLICANT: Bloomquist Ph.D., Brian T.
; APPLICANT: Flores-Riveros Ph.D., Jaime R.
; APPLICANT: Cornfield Ph.D., Linda J.
; TITLE OF INVENTION: Neuropeptide Y Receptor and Nucleic Acid
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: McDonnell Boehnen Hulbert & Berghoff
; STREET: 300 South Wacker Drive, 32nd Floor
; CITY: Chicago
; STATE: IL
; COUNTRY: USA
; ZIP: 60606
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; FILING DATE: April 8, 1996
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Greenfield Ph.D., Michael S.
; REGISTRATION NUMBER: 37,142
; REFERENCE/DOCKET NUMBER: 96,149/WH 405
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (312)715-1000
; TELEFAX: (312)715-1234
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 445 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-630-118A-6

Query Match 86.8%; Score 2271; DB 2; Length 445;
Best Local Similarity 99.5%; Pred. No. 2.2e-164;
Matches 434; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 11 MDLEDEYNNKTIATENNATRNSTPVPWDDYKSSVDDIQQYFLIGLYTFVSLLGFMGNL 70
Db 1 MDLEDEYNNKTIATENNATRNSTPVPWDDYKSSVDDIQQYFLIGLYTFVSLLGFMGNL 60

QY 71 LILMALMKKNQKTTVNFNLGNLAFSDILVLFCSPTLTSLVLDQWMFGKVMCHIMPFL 130
Db 61 LILMALMKKNQKTTVNFNLGNLAFSDILVLFCSPTLTSLVLDQWMFGKVMCHIMPFL 120

QY 131 QCVSVLVSTLILISIAIVRHMVKHPISSNNLTANHGYFLIATVMTLGFALCSPLPVFHSL 190
Db 121 QCVSVLVSTLILISIAIVRHMVKHPISSNNLTANHGYFLIATVMTLGFALCSPLPVFHSL 180

QY 191 VELQETGSSALLSRYLCVSWPSDSYRIAFITSLILVQYTLPLVCLTVSHTSVCRSISC 250
Db 181 VELQETGSSALLSRYLCVSWPSDSYRIAFITSLILVQYTLPLVCLTVSHTSVCRSISC 240

QY 251 GLSNKENRLEENEMINLTLPSSKSGPQVKSLSGSHKWSYFIKKHRRRYSKKTACVLPAP 310
Db 241 GLSNKENRLEENEMINLTLPSSKSGPQVKSLSGSHKWSYFIKKHRRRYSKKTACVLPAP 300
QY 311 ERPSQENHSRIILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKRSVTRIK 370
Db 301 ERPSQENHSRIILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKRSVTRIK 360
QY 371 KRSRSVYFRLTILVFAVSWMPHLHFHVVDNDNLISNRHFKLVYCICHLILGMMSCCL 430
Db 361 KRSRSVYFRLTILVFAVSWMPHLHFHVVDNDNLISNRHFKLVYCICHLILGMMSCCL 420
QY 431 NPILYGLFNNGIQDRL 446
Db 421 NPILYGLFNNGIKADL 436

RESULT 11
US-08-838-399-6
; Sequence 6, Application US/08838399
; Patent No. 5965392
; GENERAL INFORMATION:
; APPLICANT: Hu Ph.D., Yinghe
; APPLICANT: McCaleb Ph.D., Michael L.
; APPLICANT: Bloomquist Ph.D., Brian T.
; APPLICANT: Flores-Riveros Ph.D., Jaime R.
; APPLICANT: Cornfield Ph.D., Linda J.
; TITLE OF INVENTION: Neuropeptide Y Receptor and Nucleic Acid
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: McDonnell Boehnen Hulbert & Berghoff
; STREET: 300 South Wacker Drive
; CITY: Chicago
; STATE: IL
; COUNTRY: USA
; ZIP: 60606
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; FILING DATE: US/08/838,399
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Greenfield Ph.D., Michael S.
; REGISTRATION NUMBER: 37,147
; REFERENCE/DOCKET NUMBER: 96,149/WH 405
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (312)715-1000
; TELEFAX: (312)715-1234
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 445 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-838-399-6

Query Match 86.8%; Score 2271; DB 2; Length 445;
Best Local Similarity 99.5%; Pred. No. 2.2e-164;
Matches 434; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 11 MDLEDEYNNKTIATENNATRNSTPVPWDDYKSSVDDIQQYFLIGLYTFVSLLGFMGNL 70
Db 1 MDLEDEYNNKTIATENNATRNSTPVPWDDYKSSVDDIQQYFLIGLYTFVSLLGFMGNL 60

QY 71 LILMALMKKNQKTTVNFNLGNLAFSDILVLFCSPTLTSLVLDQWMFGKVMCHIMPFL 130
Db 61 LILMALMKKNQKTTVNFNLGNLAFSDILVLFCSPTLTSLVLDQWMFGKVMCHIMPFL 120

QY 131 QCVSVLVSTLILISIAIVRHMVKHPISSNNLTANHGYFLIATVMTLGFALCSPLPVFHSL 190
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Db121 QCVSVLSTLILISIAIVRYHMIKHPISNNLTANHGYFLIATVMTLGFALCSPPLVPFHS180

Qy191 VELOTFGSALLSSRYLCVESWPSDSYRIAFITISILLVQYILPLVCLTVSHTSVCRSISC250

Db198 VELOTFGSALLSSRYLCVESWPSDSYRIAFITISILLVQYILPLVCLTVSHTSVCRSISC240

Qy251 GLSNKENLEENEMINLTLPSPKSGQVQLSGSHKWSYFIKHHRRYSKKTACVLPAP310

Db241 GLSNKENLEENEMINLTLPSPKSGQVQLSGSHKWSYFIKHHRRYSKKTACVLPAP300

Qy311 ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKRSVTRIK370

Db301 ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKRSVTRIK360

Qy371 KRSRSVFYRLTILILVFAVSWMPLHLPHVVTDFNDNLISNRHFKLVYCI CHLLGMMSCCL430

Db361 KRSRSVFYRLTILILVFAVSWMPLHLPHVVTDFNDNLISNRHFKLVYCI CHLLGMMSCCL420

Qy431 NPILYGLNNGIQRDL446

Db421 NPILYGLNNGIKADL436

RESULT 12

US-09-003-199-21

; Sequence 21, Application US/09003199

; Patent No. 5985616

; GENERAL INFORMATION:

; APPLICANT: Parker, Eric M

; APPLICANT: Strader, Catherine D

; APPLICANT: Rudinski, Mark S

; TITLE OF INVENTION: CHIMERIC MAMMALIAN NPY Y5 RECEPTORS

; NUMBER OF SEQUENCES: 23

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Schering-Plough Corporation

; STREET: 2000 Galloping Hill Road

; CITY: Kenilworth

; STATE: NJ

; COUNTRY: USA

; ZIP: 07033-0530

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette

; COMPUTER: Apple Macintosh

; OPERATING SYSTEM: Macintosh 7.5.3

; SOFTWARE: Microsoft Word 5.1

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/003,199

; FILING DATE:

; CLASSIFICATION:

; ATTORNEY/AGENT INFORMATION:

; NAME: Thampoe, Immac J.

; REGISTRATION NUMBER: 36,322

; REFERENCE/DOCKET NUMBER: CN0775

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: (908)298-5061

; TELEFAX: (908)298-5388

; INFORMATION FOR SEQ ID NO: 21:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 445 amino acids

; TYPE: amino acid

; TOPOLOGY: linear

; MOLECULE TYPE: protein

US-09-003-199-21

Query Match 86.8%; Score 2271; DB 2; Length 445;

Best Local Similarity 99.5%; Pred. No. 2.2e-164;

Matches 434; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

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Db1 MDLELDYNNKTLATENNATATRSDFPVDYKSSVDDLOQYFLIGLTYTFVSLIGFMGNL60

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Query Match	86.8%; Score 2271; DB 3; Length 445;
Best Local Similarity	99.5%; Pred. No. 2.2e-164;
Matches 434; Conservative 1; Mismatches 1; Indels 0; Gaps 0;	
NAME: Greenfield Ph.D., Michael S.	
REGISTRATION NUMBER: 37,147	
REFERENCE/DOCKET NUMBER: 96,149/WH 405	
TELECOMMUNICATION INFORMATION:	
TELEPHONE: (312)715-1000	
TELEFAX: (312)715-1234	
INFORMATION FOR SEQ ID NO: 6:	
SEQUENCE CHARACTERISTICS:	
LENGTH: 445 amino acids	
TYPE: amino acid	
TOPOLOGY: linear	
MOLECULE TYPE: protein	
SEQUENCE DESCRIPTION: SEQ ID NO: 6:	
US-09-327-035-6	
Query Match	86.8%; Score 2271; DB 3; Length 445;
Best Local Similarity	99.5%; Pred. No. 2.2e-164;
Matches 434; Conservative 1; Mismatches 1; Indels 0; Gaps 0;	
NAME: Greenfield Ph.D., Michael S.	
REGISTRATION NUMBER: 37,147	
REFERENCE/DOCKET NUMBER: 96,149/WH 405	
TELECOMMUNICATION INFORMATION:	
TELEPHONE: (312)715-1000	
TELEFAX: (312)715-1234	
INFORMATION FOR SEQ ID NO: 6:	
SEQUENCE CHARACTERISTICS:	
LENGTH: 445 amino acids	
TYPE: amino acid	
TOPOLOGY: linear	
MOLECULE TYPE: protein	
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Matches 434; Conservative 1; Mismatches 1; Indels 0; Gaps 0;	
NAME: Greenfield Ph.D., Michael S.	
REGISTRATION NUMBER: 37,147	
REFERENCE/DOCKET NUMBER: 96,149/WH 405	
TELECOMMUNICATION INFORMATION:	
TELEPHONE: (312)715-1000	
TELEFAX: (312)715-1234	
INFORMATION FOR SEQ ID NO: 6:	
SEQUENCE CHARACTERISTICS:	
LENGTH: 445 amino acids	
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TOPOLOGY: linear	
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NAME: Greenfield Ph.D., Michael S.	
REGISTRATION NUMBER: 37,147	
REFERENCE/DOCKET NUMBER: 96,149/WH 405	
TELECOMMUNICATION INFORMATION:	
TELEPHONE: (312)715-1000	
TELEFAX: (312)715-1234	
INFORMATION FOR SEQ ID NO: 6:	
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LENGTH: 445 amino acids	
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TOPOLOGY: linear	
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US-09-327-035-6	
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NAME: Greenfield Ph.D., Michael S.	
REGISTRATION NUMBER: 37,147	
REFERENCE/DOCKET NUMBER: 96,149/WH 405	
TELECOMMUNICATION INFORMATION:	
TELEPHONE: (312)715-1000	
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INFORMATION FOR SEQ ID NO: 6:	
SEQUENCE CHARACTERISTICS:	
LENGTH: 445 amino acids	
TYPE: amino acid	
TOPOLOGY: linear	
MOLECULE TYPE: protein	
SEQUENCE DESCRIPTION: SEQ ID NO: 6:	
US-09-327-035-6	
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NAME: Greenfield Ph.D., Michael S.	
REGISTRATION NUMBER: 37,147	
REFERENCE/DOCKET NUMBER: 96,149/WH 405	
TELECOMMUNICATION INFORMATION:	
TELEPHONE: (312)715-1000	
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NAME: Greenfield Ph.D., Michael S.	
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TELEPHONE: (312)715-1000	
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NAME: Greenfield Ph.D., Michael S.	
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TOPOLOGY: linear	
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NAME: Greenfield Ph.D., Michael S.	
REGISTRATION NUMBER: 37,147	
REFERENCE/DOCKET NUMBER: 96,149/WH 405	
TELECOMMUNICATION INFORMATION:	
TELEPHONE: (312)715-1000	
TELEFAX: (312)715-1234	
INFORMATION FOR SEQ ID NO: 6:	

Best Local Similarity 99.5%; Pred. No. 2.2e-164;				
Matches 434; Conservative 1; Mismatches 1; Indels 0; Gaps 0;				
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Db	1	MDLEDEYNNKTLATENNATARNSDFPVDDYKSSVDDLOQYFLIGLYTFFVSLGFMGNL	60	
Qy	71	LILMALMKRRNQKTTVNFNLGNLAFSDILVLFCSPPFTLTSVLLDQWFMGKVMCHIMPEFL	130	
Db	61	LILMALMKRRNQKTTVNFNLGNLAFSDILVLFCSPPFTLTSVLLDQWFMGKVMCHIMPEFL	120	
Qy	131	QCVSVLVSTLILISIAIVRYHMIKPIISNNLTANHGYFLIATVWTGLGPAICSPPLVFHSL	190	
Db	121	QCVSVLVSTLILISIAIVRYHMIKPIISNNLTANHGYFLIATVWTGLGPAICSPPLVFHSL	180	
Qy	191	VELOETFGSALLSSRYLCVESWPDSYRIAFITISLLVQYILPLVCLTVSHTSVCRSISC	250	
Db	181	VELOETFGSALLSSRYLCVESWPDSYRIAFITISLLVQYILPLVCLTVSHTSVCRSISC	240	
Qy	251	GLSNKENLEENEMINLTLPFSKSGQVQLSGSHKWSYFIKKHRRYSKKTACVLPAP	310	
Db	241	GLSNKENLEENEMINLTLPFSKSGQVQLSGSHKWSYFIKKHRRYSKKTACVLPAP	300	
Qy	311	ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELRYKRSVTRIK	370	
Db	301	ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELRYKRSVTRIK	360	
Qy	371	KRSRSVFYRLTILILVPAVSWMPLHLPHVVTDENNDNLISNRHFKLVYCICHLGMMSCCL	430	
Db	361	KRSRSVFYRLTILILVPAVSWMPLHLPHVVTDENNDNLISNRHFKLVYCICHLGMMSCCL	420	
Qy	431	NPILYGLNNGIQRDL	446	
Db	421	NPILYGLNNGIKADL	436	

Search completed: June 7, 2005, 18:00:19  
Job time : 45 secs



GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: June 7, 2005, 17:52:56 ; Search time 149 seconds  
(without alignments)  
1206.318 Million cell updates/sec

Title: US-09-771-956-9  
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Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1599520 seqs, 360203123 residues

Total number of hits satisfying chosen parameters: 1599520

Minimum DB seq length: 0  
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Post-processing: Minimum Match 0%  
Listing first 45 summaries

Database : Published Applications AA:  
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21: /cgn2\_6/ptodata/1/pubpaa/US60\_PUBCOMB.pdb.p:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	2326	88.9	455	9	US-09-771-956-13
3	2326	88.9	455	9	US-09-962-646-4
4	2326	88.9	455	14	US-10-013-846-7
5	2326	88.9	455	15	US-10-410-648-7
6	2317	88.6	455	9	US-09-771-956-30
7	2309	88.3	455	14	US-10-274-851-7
8	2285.5	87.4	499	9	US-09-771-956-24
9	2276.5	87.0	508	9	US-09-771-956-22
10	2271	86.8	445	14	US-10-027-049-6
11	2271	86.8	445	14	US-10-225-567A-205
12	2271	86.8	445	15	US-10-295-027-668

13	2271	86.8	445	15	US-10-181-906-14	Sequence 14, Appl
14	2271	86.8	445	16	US-10-686-390-13	Sequence 13, Appl
15	2262	86.5	445	10	US-09-826-509-533	Sequence 533, App
16	2036.5	77.8	456	9	US-09-962-646-2	Sequence 2, Appli
17	2026.5	77.5	445	14	US-10-027-049-4	Sequence 4, Appli
18	2019.5	77.2	445	14	US-10-027-049-2	Sequence 2, Appli
19	1899.5	72.6	394	9	US-09-771-956-10	Sequence 10, Appl
20	1899.5	72.6	394	14	US-10-013-846-17	Sequence 17, Appl
21	1899.5	72.6	394	15	US-10-410-648-17	Sequence 17, Appl
22	1877.5	71.8	394	14	US-10-274-851-17	Sequence 17, Appl
23	1799	68.8	383	9	US-09-771-956-21	Sequence 21, Appl
24	1734.5	66.3	395	9	US-09-771-956-25	Sequence 25, Appl
25	1732	66.2	383	9	US-09-771-956-27	Sequence 27, Appl
26	1621	62.0	334	9	US-09-962-646-6	Sequence 6, Appli
27	1609.5	61.5	350	9	US-09-771-956-6	Sequence 6, Appli
28	1525.5	58.3	341	9	US-09-771-956-20	Sequence 20, Appl
29	1485.5	56.8	352	9	US-09-771-956-23	Sequence 23, Appl
30	1479.5	56.6	341	9	US-09-771-956-26	Sequence 26, Appl
31	771.5	29.5	384	9	US-09-771-956-2	Sequence 2, Appli
32	771.5	29.5	384	10	US-09-393-696-23	Sequence 23, Appl
33	771.5	29.5	384	14	US-10-013-846-4	Sequence 4, Appl
34	771.5	29.5	384	14	US-10-176-847-26	Sequence 26, Appl
35	771.5	29.5	384	14	US-10-225-567A-378	Sequence 378, App
36	771.5	29.5	384	14	US-10-309-515-10	Sequence 10, Appl
37	771.5	29.5	384	14	US-10-177-293-330	Sequence 330, App
38	771.5	29.5	384	14	US-10-060-369-10	Sequence 10, Appl
39	771.5	29.5	384	14	US-10-291-990-31	Sequence 31, Appl
40	771.5	29.5	384	14	US-10-126-764-10	Sequence 10, Appl
41	771.5	29.5	384	15	US-10-295-027-640	Sequence 640, App
42	771.5	29.5	384	15	US-10-295-027-746	Sequence 746, App
43	771.5	29.5	384	15	US-10-410-648-4	Sequence 4, Appli
44	771.5	29.5	384	16	US-10-723-860-2200	Sequence 2200, Ap
45	771.5	29.5	384	16	US-10-686-390-9	Sequence 9, Appli

ALIGNMENTS

RESULT 1  
US-09-771-956-9  
; Sequence 9, Application US/09771956  
; Patent No. US20010031474A1  
; GENERAL INFORMATION:  
; APPLICANT: Bennett, Michele  
; APPLICANT: Brodbeck, Robin  
; APPLICANT: Krause, James  
; TITLE OF INVENTION: Chimeric Neuropeptide Y Receptors  
; FILE REFERENCE: N2000.001  
; CURRENT APPLICATION NUMBER: US/09/771.956  
; CURRENT FILING DATE: 2001-01-29  
; NUMBER OF SEQ ID NOS: 31  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 9  
; LENGTH: 499  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence:Y5/Y1 CHIMERA  
US-09-771-956-9

Query Match	100.0%;	Score 2616;	DB 9;	Length 499;
Best Local Similarity	100.0%;	Pred. No. 1.7e-214;		
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Db	1	MSFYSKQDYNMDELDYNNKTATENNATATRNDFPVDYKSSVDDLYFLGLTYTF	60	
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QY 421 HLLGMSSCCLNPILYGLFNNGIQORDL 446
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RESULT 2
US-09-771-956-13
; Sequence 13, Application US/09771956
; Patent No. US200100314741
; GENERAL INFORMATION:
; APPLICANT: Bennett, Michele
; APPLICANT: Brodbeck, Robbin
; APPLICANT: Krause, James
; TITLE OF INVENTION: Chimeric Neuropeptide Y Receptors
; FILE REFERENCE: N2000.001
; CURRENT APPLICATION NUMBER: US/09/771,956
; CURRENT FILING DATE: 2001-01-29
; NUMBER OF SEQ ID NOS: 31
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 13
; LENGTH: 455
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-771-956-13

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Best Local Similarity 99.6%; Pred. No. 8.7e-190;
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

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Db 181 CSPLPVPHSLVELQETFGSALLSRYLCVESWSPDSYRIAFTISLLLVQVILPLVCLTVS 240
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Db 241 HTSVCRSISCGLSNKENRLEENEMINLTLPSPKSGQVQLSGSHKWSYFIKHHRRYS 300
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Db 361 RVKRSVTRIKKRSRVFYRLTILILVFAVSWMPHLHFHVVTDFNDNLISNRHFKLVYCIC 420
QY 421 HLLGMSSCCLNPILYGLFNNGIQORDL 446
Db 421 HLLGMSSCCLNPILYGLFNNGIQORDL 446

RESULT 3
US-09-962-646-4
; Sequence 4, Application US/09962646
; Patent No. US20020103123A1
; GENERAL INFORMATION:
; APPLICANT: GERALD, CHRISTOPHE P.G.
; APPLICANT: WEINSHANK, RICHARD L
; APPLICANT: WALKER, MARY W
; APPLICANT: BRANCHEK, THERESA
; TITLE OF INVENTION: MODIFYING FEEDING BEHAVIOR, COMPOUNDS USEFUL IN SUCH METHODS, AND
; FILE REFERENCE: 1795/46166BZA
; CURRENT APPLICATION NUMBER: US/09/962,646
; CURRENT FILING DATE: 2001-09-24
; PRIOR APPLICATION NUMBER: 09/200,673
; PRIOR FILING DATE: 1998-11-25
; PRIOR APPLICATION NUMBER: 08/566,096
; PRIOR FILING DATE: 1995-12-01
; PRIOR APPLICATION NUMBER: 08/349,025
; PRIOR FILING DATE: 1994-12-01
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 455
; TYPE: PRT
; ORGANISM: Homo Sapiens
; US-09-962-646-4

Query Match 88.9%; Score 2326; DB 9; Length 455;
Best Local Similarity 99.6%; Pred. No. 8.7e-190;
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

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Db 1 MSFYSKQDYNMDELDEYYNKTLATENNTAATRNSDPPVWDDYKSSVDDLQYFLIGLYTF 60
QY 61 VSLLGFMGNLLILMALMKRNQKTTVNFIGNLAFSDILVLFCSPTLTSVLLDQWMFG 120
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QY 121 KVMCHIMPFLQCVSVLSTLILISIAIVRHHMKHPISNNLTANHGYFLIATVMTLGFAL 180
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QY 361 RVKRSVTRIKKRSRVFYRLTILILVFAVSWMPHLHFHVVTDFNDNLISNRHFKLVYCIC 420
Db 361 RVKRSVTRIKKRSRVFYRLTILILVFAVSWMPHLHFHVVTDFNDNLISNRHFKLVYCIC 420
QY 421 HLLGMSSCCLNPILYGLFNNGIQORDL 446
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Db 421 HLLGMSCLNPILYGLFNNIGKADL 446

RESULT 4  
US-10-013-846-7  
; Sequence 7, Application US/10013846  
; Publication No. US20030036652A1  
; GENERAL INFORMATION:  
; APPLICANT: Bakthavatchalam, Rajagopal  
; APPLICANT: Blum, Charles A.  
; APPLICANT: Brielmann, Harry L.  
; APPLICANT: Darrow, James W.  
; APPLICANT: De Lombaert, Stephane  
; APPLICANT: Hutchison, Alan  
; APPLICANT: Tran, Jennifer  
; APPLICANT: Zheng, Xiaozhang  
; APPLICANT: Elliott, Richard L.  
; APPLICANT: Hammond, Marlys  
; TITLE OF INVENTION: Spiro[isobenzofuran-1,4'-piperidin]-3-ones and  
; FILE REFERENCE: 3H-spiroisobenzofuran-1,4'-piperidines  
; CURRENT APPLICATION NUMBER: US/10/013.846  
; PRIOR FILING DATE: 2001-12-11  
; PRIOR FILING DATE: 2001-12-11  
; PRIOR FILING DATE: 2001-12-11  
; NUMBER OF SEQ ID NOS: 17  
; SOFTWARE: Patent in version 3.1  
; SEQ ID NO 7  
; LENGTH: 455  
; TYPE: PRT  
; ORGANISM: homosapiens  
US-10-013-846-7

Query Match 88.9%; Score 2326; DB 14; Length 455;  
Best Local Similarity 99.6%; Pred. No. 8.7e-190;  
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
Qy 1 MSFYSKQDYNMDLDEYNNKTLATENNTAATRNDDYKSSVDDLOYLGLTYF 60  
Db 1 MSFYSKQDYNMDLDEYNNKTLATENNTAATRNDDYKSSVDDLOYLGLTYF 60  
Qy 61 VSLGFGMNLILMALMKRQKTTVNFNLGNLAFSDILVLFCSPTLTSLVLDQWFG 120  
Db 61 VSLGFGMNLILMALMKRQKTTVNFNLGNLAFSDILVLFCSPTLTSLVLDQWFG 120  
Qy 121 KVMCHIMPFLQCVSVLSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVMTLGP 180  
Db 121 KVMCHIMPFLQCVSVLSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVMTLGP 180  
Qy 181 CSPLPVFHSLVLOETFGSALLSRYLCSVSWPDSYRIATISILLVQYILPLVCLTVS 240  
Db 181 CSPLPVFHSLVLOETFGSALLSRYLCSVSWPDSYRIATISILLVQYILPLVCLTVS 240  
Qy 241 HTSVCRSISCGLSKNENLEENINLTLPKSKSGQVQLSGSHKWSYFIKHHRRYS 300  
Db 241 HTSVCRSISCGLSKNENLEENINLTLPKSKSGQVQLSGSHKWSYFIKHHRRYS 300  
Qy 301 KKTACVLPAPEPQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENS DVHEL 360  
Db 301 KKTACVLPAPEPQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENS DVHEL 360  
Qy 361 RVKRSVTRIKKRSRSVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLISNRHFKLVYCIC 420  
Db 361 RVKRSVTRIKKRSRSVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLISNRHFKLVYCIC 420  
Qy 421 HLLGMSCLNPILYGLFNNIGKADL 446  
Db 421 HLLGMSCLNPILYGLFNNIGKADL 446

RESULT 5  
US-10-410-648-7

; Sequence 7, Application US/10410648  
; Publication No. US20040072847A1  
; GENERAL INFORMATION:  
; APPLICANT: Bakthavatchalam, Rajagopal  
; APPLICANT: Blum, Charles A.  
; APPLICANT: Brielmann, Harry L.  
; APPLICANT: Darrow, James W.  
; APPLICANT: De Lombaert, Stephane W.  
; APPLICANT: Hutchinson, Alan W.  
; APPLICANT: Tran, Jennifer W.  
; APPLICANT: Zheng, Xiaozhang W.  
; APPLICANT: Elliott, Richard L.  
; APPLICANT: Hammond, Marlys L.  
; TITLE OF INVENTION: SPIRO[ISOBENZOFURAN-1,4'-PIPERIDIN]-3-ONES AND  
; FILE REFERENCE: U 014539-7  
; CURRENT APPLICATION NUMBER: US/10/410.648  
; CURRENT FILING DATE: 2003-04-09  
; PRIOR FILING DATE: 2001-12-11  
; PRIOR FILING DATE: 2001-12-11  
; PRIOR FILING DATE: 2001-12-11  
; NUMBER OF SEQ ID NOS: 17  
; SOFTWARE: Patent in version 3.1  
; SEQ ID NO 7  
; LENGTH: 455  
; TYPE: PRT  
; ORGANISM: homo sapiens  
US-10-410-648-7

Query Match 88.9%; Score 2326; DB 15; Length 455;  
Best Local Similarity 99.6%; Pred. No. 8.7e-190;  
Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
Qy 1 MSFYSKQDYNMDLDEYNNKTLATENNTAATRNDDYKSSVDDLOYLGLTYF 60  
Db 1 MSFYSKQDYNMDLDEYNNKTLATENNTAATRNDDYKSSVDDLOYLGLTYF 60  
Qy 61 VSLGFGMNLILMALMKRQKTTVNFNLGNLAFSDILVLFCSPTLTSLVLDQWFG 120  
Db 61 VSLGFGMNLILMALMKRQKTTVNFNLGNLAFSDILVLFCSPTLTSLVLDQWFG 120  
Qy 121 KVMCHIMPFLQCVSVLSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVMTLGP 180  
Db 121 KVMCHIMPFLQCVSVLSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVMTLGP 180  
Qy 181 CSPLPVFHSLVLOETFGSALLSRYLCSVSWPDSYRIATISILLVQYILPLVCLTVS 240  
Db 181 CSPLPVFHSLVLOETFGSALLSRYLCSVSWPDSYRIATISILLVQYILPLVCLTVS 240  
Qy 241 HTSVCRSISCGLSKNENLEENINLTLPKSKSGQVQLSGSHKWSYFIKHHRRYS 300  
Db 241 HTSVCRSISCGLSKNENLEENINLTLPKSKSGQVQLSGSHKWSYFIKHHRRYS 300  
Qy 301 KKTACVLPAPEPQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENS DVHEL 360  
Db 301 KKTACVLPAPEPQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENS DVHEL 360  
Qy 361 RVKRSVTRIKKRSRSVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLISNRHFKLVYCIC 420  
Db 361 RVKRSVTRIKKRSRSVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLISNRHFKLVYCIC 420  
Qy 421 HLLGMSCLNPILYGLFNNIGKADL 446  
Db 421 HLLGMSCLNPILYGLFNNIGKADL 446

RESULT 6  
US-09-771-956-30  
; Sequence 30, Application US/09771956  
; Patent No. US20010031474A1  
; GENERAL INFORMATION:  
; APPLICANT: Bennett, Michele

```
; APPLICANT: Brodbeck, Robbin
; APPLICANT: Krause, James
; TITLE OF INVENTION: Chimeric Neuropeptide Y Receptors
; FILE REFERENCE: N2000.001
; CURRENT APPLICATION NUMBER: US/09/771,956
; CURRENT FILING DATE: 2001-01-29
; NUMBER OF SEQ ID NOS: 31
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 30
; LENGTH: 455
; TYPE: PRT
; ORGANISM: Cercopithecus aethiops
US-09-771-956-30

; Query Match
; Best Local Similarity 88.6%; Score 2317; DB 9; Length 455;
; Mismatches 2; Mismatches 2; Indels 0; Gaps 0;
Matches 442; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 1 MSFYSKQDYNMDLEDEYNNKTLATENNNTAATNSDFFPVWDDYKSSVDDIQLYFLIGLYTF 60
Db 1 MSFYSKQDYNMDLEDEYNNKTLATENNNTAATNSDFFPVWDDYKSSVDDIQLYFLIGLYTF 60
QY 61 VSLGFGMGNLLILMALMKRNQKTTVNFIGNLAFSDILVVLFCSPFTLTSVLLDQWMFG 120
Db 61 VSLGFGMGNLLILMALMKRNQKTTVNFIGNLAFSDILVVLFCSPFTLTSVLLDQWMFG 120
QY 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMIKHPISNNLTANHGVELIATVWTLGFAI 180
Db 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMIKHPISNNLTANHGVELIATVWTLGFAI 180
QY 181 CSPLPVFHSLVELQETFGSALLSRYLCVSWPDSYRIAFITISLLAVQVILPLVCLTVS 240
Db 181 CSPLPVFHSLVELQETFGSALLSRYLCVSWPDSYRIAFITISLLAVQVILPLVCLTVS 240
QY 241 HTSVCRSISCGLSNKENRLEENEMINLTLPSPKSGPQVKLSGSHKWSYFIKKHRRYS 300
Db 241 HTSVCRSISCGLSNKENRLEENEMINLTLPSPKSGPQVKLSGSHKWSYFIKKHRRYS 300
QY 301 KKTACVLPAPERPSQENHSRIILPENFGSVRSQSSSKFIPGVPTCTCFEIKPEENSDVHEL 360
Db 301 KKTACVLPAPERPSQENHSRIILPENFGSVRSQSSSKFIPGVPTCTCFEIKPEENSDVHEL 360
QY 361 RVKRSVTRIKGRSRYFYRTLILVFAVSWMPHLPHFVVTDFNDNLISNRHFKLVYCIC 420
Db 361 RVKRSVTRIKGRSRYFYRTLILVFAVSWMPHLPHFVVTDFNDNLISNRHFKLVYCIC 420
QY 421 HLLGMMSCCLNPILYGLFNNGIQDRL 446
Db 421 HLLGMMSCCLNPILYGLFNNGIKADL 446

RESULT 7
US-10-274-851-7
; Sequence 7, Application US/10274851
; Publication No. US20030144290A1
; GENERAL INFORMATION:
; APPLICANT: Blum, Charles
; APPLICANT: Brielmann, Harry
; APPLICANT: De Lombaert, Stephane
; APPLICANT: Zheng, Xiaozhang
; TITLE OF INVENTION: SUBSTITUTE 2-CYCLOHEXYL-4-PHENYL-1H-IMIDAZOLE
; FILE REFERENCE: U 014209-8
; CURRENT APPLICATION NUMBER: US/10/274,851
; CURRENT FILING DATE: 2002-10-21
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 7
; LENGTH: 455
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-274-851-7

; APPLICANT: Brodbeck, Robbin
; APPLICANT: Krause, James
; TITLE OF INVENTION: Chimeric Neuropeptide Y Receptors
; FILE REFERENCE: N2000.001
; CURRENT APPLICATION NUMBER: US/09/771,956
; CURRENT FILING DATE: 2001-01-29
; NUMBER OF SEQ ID NOS: 31
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 24
; LENGTH: 499
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:Y1/Y5 CHIMERA
US-09-771-956-24

; Query Match
; Best Local Similarity 87.4%; Score 2285.5; DB 9; Length 499;
; Mismatches 22; Mismatches 22; Indels 3; Gaps 3;
Matches 439; Conservative 22; Mismatches 22; Indels 3; Gaps 3;

QY 7 QDYNMDLEDEYNNKTLATENNNTAATNSDFFPVWDDYKSSVDDIQLYFLIGLYTFVSLGLF 66
Db 8 QDSMEFKLEEHFNKTFVTENNNTAAARNAAPAWEDYRGSVDLQYFLIGLYTFVSLGLF 67
QY 67 MGNLLILMALMKRNQKTTVNFIGNLAFSDILVVLFCSPFTLTSVLLDQWMFGKVMCHI 126
Db 68 MGNLLILMAVMKRNQKTTVNFIGNLAFSDILVVLFCSPFTLTSVLLDQWMFGKVMCHI 127
QY 127 MPFLQCVSVLVSTLILISIAIVRYHMIKHPISNNLTANHGVELIATVWTLGFAICSPLPV 186
Db 127 MPFLQCVSVLVSTLILISIAIVRYHMIKHPISNNLTANHGVELIATVWTLGFAICSPLPV 186

; APPLICANT: Brodbeck, Robbin
; APPLICANT: Krause, James
; TITLE OF INVENTION: Chimeric Neuropeptide Y Receptors
; FILE REFERENCE: N2000.001
; CURRENT APPLICATION NUMBER: US/09/771,956
; CURRENT FILING DATE: 2001-01-29
; NUMBER OF SEQ ID NOS: 31
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 24
; LENGTH: 499
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:Y1/Y5 CHIMERA
US-09-771-956-24

; Query Match
; Best Local Similarity 88.3%; Score 2309; DB 14; Length 455;
; Mismatches 1; Mismatches 1; Indels 0; Gaps 0;
Matches 442; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 MSFYSKQDYNMDLEDEYNNKTLATENNNTAATNSDFFPVWDDYKSSVDDIQLYFLIGLYTF 60
Db 1 MSFYSKQDYNMDLEDEYNNKTLATENNNTAATNSDFFPVWDDYKSSVDDIQLYFLIGLYTF 60
QY 61 VSLGFGMGNLLILMALMKRNQKTTVNFIGNLAFSDILVVLFCSPFTLTSVLLDQWMFG 120
Db 61 VSLGFGMGNLLILMALMKRNQKTTVNFIGNLAFSDILVVLFCSPFTLTSVLLDQWMFG 120
QY 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMIKHPISNNLTANHGVELIATVWTLGFAI 180
Db 121 KVMCHIMPFLQCVSVLVSTLILISIAIVRYHMIKHPISNNLTANHGVELIATVWTLGFAI 180
QY 181 CSPLPVFHSLVELQETFGSALLSRYLCVSWPDSYRIAFITISLLAVQVILPLVCLTVS 240
Db 181 CSPLPVFHSLVELQETFGSALLSRYLCVSWPDSYRIAFITISLLAVQVILPLVCLTVS 240
QY 241 HTSVCRSISCGLSNKENRLEENEMINLTLPSPKSGPQVKLSGSHKWSYFIKKHRRYS 300
Db 241 HTSVCRSISCGLSNKENRLEENEMINLTLPSPKSGPQVKLSGSHKWSYFIKKHRRYS 300
QY 301 KKTACVLPAPERPSQENHSRIILPENFGSVRSQSSSKFIPGVPTCTCFEIKPEENSDVHEL 360
Db 301 KKTACVLPAPERPSQENHSRIILPENFGSVRSQSSSKFIPGVPTCTCFEIKPEENSDVHEL 360
QY 361 RVKRSVTRIKGRSRYFYRTLILVFAVSWMPHLPHFVVTDFNDNLISNRHFKLVYCIC 420
Db 361 RVKRSVTRIKGRSRYFYRTLILVFAVSWMPHLPHFVVTDFNDNLISNRHFKLVYCIC 420
QY 421 HLLGMMSCCLNPILYGLFNNGIQDRL 446
Db 421 HLLGMMSCCLNPILYGLFNNGIKADL 446

RESULT 8
US-09-771-956-24
; Sequence 24, Application US/09771956
; Patent No. US20010031474A1
; GENERAL INFORMATION:
; APPLICANT: Bennett, Michele
; APPLICANT: Brodbeck, Robbin
; APPLICANT: Krause, James
; TITLE OF INVENTION: Chimeric Neuropeptide Y Receptors
; FILE REFERENCE: N2000.001
; CURRENT APPLICATION NUMBER: US/09/771,956
; CURRENT FILING DATE: 2001-01-29
; NUMBER OF SEQ ID NOS: 31
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 24
; LENGTH: 499
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:Y1/Y5 CHIMERA
US-09-771-956-24
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Db 128 MPFLQCVSVLSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVMTLGFALCSPUPV 187  
Qy 187 FHSVLQLOTFGSALLSSRYLCVESWPDSYRIAFITISILLVQYILPLVCLTVSHTSVCR 246  
Db 188 FHSVLQLOTFGSALLSSRYLCVESWPDSYRIAFITISILLVQYILPLVCLTVSHTSVCR 247  
Qy 247 SISGLSKENKLENEMINLTLPSSKSGKSGPOVKLSGSHKWSYFIKHHRRYSKKTACV 306  
Db 248 SISGLSKENKLENEMINLTLPSSKSGKSGPOVKLSGSHKWSYFIKHHRRYSKKTACV 307  
Qy 307 LPAPERPOQHRSRILPENFGSVRSQSSSKFIPGVPCTCFIKPEENS DVHVLKRSV 366  
Db 308 LPAPAGPQGRHLAV-PENPAGSVRSQSSSKFIPGVPCTCFIKPEENS DAHEMVKRSI 366  
Qy 367 TRIKRSRSVFYRLTILILVFAVSNMPLHLFHVVDTFDNDNISNRHFKLVYICHLGLWM 426  
Db 367 TRIKRSRSVFYRLTILILVFAVSNMPLHLFHVVDTFDNDNISNRHFKLVYICHLGLWM 426  
Qy 427 SCCLNPILYGFNNGI-QRDLOFFNFCDFRSRDDDYETIAMSTMHTDVSKTSLKQASPV 485  
Db 427 SCCLNPILYGFNNGI-QRDLOFFNFCDFRSRDDDYETIAMSTMHTDVSKTSLKQASPV 486  
Qy 486 AFKKINNNDDNEKI 499  
Db 487 AFKKISMN-DNEKI 499

RESULT 9  
US-09-771-956-22  
; Sequence 22, Application US/09771956  
; Patent No. US20010031474A1  
; GENERAL INFORMATION:  
; APPLICANT: Bennett, Michele  
; APPLICANT: Brodbeck, Robbin  
; APPLICANT: Krause, James  
; TITLE OF INVENTION: Chimeric Neuropeptide Y Receptors  
; FILE REFERENCE: N2000.001  
; CURRENT APPLICATION NUMBER: US/09/771,956  
; CURRENT FILING DATE: 2001-01-29  
; NUMBER OF SEQ ID NOS: 31  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 22  
; LENGTH: 508  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: Y1/Y5 CHIMERA  
US-09-771-956-22

Query Match 87.0%; Score 2276.5; DB 9; Length 508;  
Best Local Similarity 85.9%; Pred. No. 1.7e-185;  
Matches 438; Conservative 24; Mismatches 25; Indels 23; Gaps 3;  
Qy 11 MDLEDEYNNKTLATENNNTAAT-----RNSDFPWWDDYKSSVDD 49  
Db 1 MEVLEEHNKTFVTENNNTAASQNTASPAWEDYRGTENNNTSAARNTAFPPWEDYRGVDD 60  
Qy 50 LOYFLIGLYTFVSLGFGNGLLILMALMKRNQKTTVNFIGNLAFSDILVFLCSPFTL 109  
Db 61 LOYFLIGLYTFVSLGFGNGLLILMALMKRNQKTTVNFIGNLAFSDILVFLCSPFTL 120  
Qy 110 TSVLLDQWFGKVMCHIMPFFQCVSVLSTLILISIAIVRYHMKHPISNNLTANHGYFL 169  
Db 121 TSVLLDQWFGKVMCHIMPFFQCVSVLSTLILISIAIVRYHMKHPISNNLTANHGYFL 180  
Qy 170 IATVMTLGFALCSPUPVFSHVELQTFGSALLSSRYLCVESWPDSYRIAFITISILLVQ 229  
Db 181 IATVMTLGFALCSPUPVFSHVELQTFGSALLSSRYLCVESWPDSYRIAFITISILLVQ 240  
Qy 230 YILPLVCLTVSHTSVCRSISGLSKENKLENEMINLTLPSSKSGKSGPOVKLSGSHKWSY 289  
Db 241 YILPLVCLTVSHTSVCRSISGLSKENKLENEMINLTLPSSKSGKSGPOVKLSGSHKWSY 300

Qy 290 SPIKHHRRYSKKTACVLPAPERFSPQENHSRILPENFGSVRSQSSSKFIPGVPCTCFEI 349  
Db 301 SPIKHHRRYSKKTACVLPAPERFSPQENHSRILPENFGSVRSQSSSKFIPGVPCTCFEI 359  
Qy 350 KPEENS DVHVLKRSVTRIKRSRSVFYRLTILILVFAVSNMPLHLFHVVDTFDNDNLIS 409  
Db 360 KPEENS DVHVLKRSVTRIKRSRSVFYRLTILILVFAVSNMPLHLFHVVDTFDNDNLIS 419  
Qy 410 NRHFKLVYICHLGLWMSCCLNPILYGFNNGIQRDLOFFNFCDFRSRDDDYETIAMST 469  
Db 420 NRHFKLVYICHLGLWMSCCLNPILYGFNNGIQRDLOFFNFCDFRSRDDDYETIAMST 479  
Qy 470 MHTDVSKTSLKQASPVAFKKINNNDDNEKI 499  
Db 480 MHTDVSKTSLKQASPVAFKKISMN-DNEKV 508

RESULT 10  
US-10-027-049-6  
; Sequence 6, Application US/10027049  
; Publication No. US20030022283A1  
; GENERAL INFORMATION:  
; APPLICANT: Hu Ph.D., Yinghe  
; McCaleb Ph.D., Michael L.  
; Bloomquist Ph.D., Brian T.  
; Flores-Riveros Ph.D., Jaime R.  
; Cornfield Ph.D., Linda J.  
; TITLE OF INVENTION: Neuropeptide Y Receptor and Nucleic Acid  
; NUMBER OF SEQUENCES: 8  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: McDonnell Boehnen Hulbert & Berghoff  
; STREET: 300 South Wacker Drive, 32nd Floor  
; CITY: Chicago  
; STATE: IL  
; COUNTRY: USA  
; ZIP: 60606

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/10/027,049  
FILING DATE: 08-Apr-1996  
CLASSIFICATION: <unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Greenfield Ph.D., Michael S.  
REGISTRATION NUMBER: 37,142  
REFERENCE/DOCKET NUMBER: 96,149/WH 405  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (312)715-1000  
TELEFAX: (312)715-1234  
INFORMATION FOR SEQ ID NO: 6:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 445 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
SEQUENCE DESCRIPTION: SEQ ID NO: 6:  
US-10-027-049-6

Query Match 86.8%; Score 2271; DB 14; Length 445;  
Best Local Similarity 99.5%; Pred. No. 4.2e-185;  
Matches 434; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
Qy 11 MDLEDEYNNKTLATENNNTAATRNSDFPWWDDYKSSVDDLOQYFLIGLYTFVSLGFGMGNL 70  
Db 1 MDLEDEYNNKTLATENNNTAATRNSDFPWWDDYKSSVDDLOQYFLIGLYTFVSLGFGMGNL 60  
Qy 71 LILMALMKRNQKTTVNFIGNLAFSDILVFLCSPFTLTSVLLDQWFGKVMCHIMPFL 130  
Db 61 LILMALMKRNQKTTVNFIGNLAFSDILVFLCSPFTLTSVLLDQWFGKVMCHIMPFL 120

QY	131	QCYSVLVSTLILISIALVRVHMIKHPISNNLTANHGVFLIATVMTLGFALCSPPLPVFHS	190
Db	121	QCYSVLVSTLILISIALVRVHMIKHPISNNLTANHGVFLIATVMTLGFALCSPPLPVFHS	180
QY	191	VELQETFGSALLSSRYLCVESWPSDSYRIAFTISLLLVQYILPLVCLTVSHTSVCSRISC	250
Db	181	VELQETFGSALLSSRYLCVESWPSDSYRIAFTISLLLVQYILPLVCLTVSHTSVCSRISC	240
QY	251	GLSNKENRLEENEMINLTLPSSKSGPOVKLSGSHKWSYFIKKHRRYSKKTACVLPAP	310
Db	241	GLSNKENRLEENEMINLTLPSSKSGPOVKLSGSHKWSYFIKKHRRYSKKTACVLPAP	300
QY	311	ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKRSVTRIK	370
Db	301	ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKRSVTRIK	360
QY	371	KRSRSVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLI SNRHFKL VYCI CHLLGMMSCCL	430
Db	361	KRSRSVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLI SNRHFKL VYCI CHLLGMMSCCL	420
QY	431	NPILYGFLNNGIQORDL 446	
Db	421	NPILYGFLNNGIKADL 436	
RESULT 11			
US-10-225-567A-205			
; Sequence 205, Application US/10225567A			
; Publication No. US20030113798A1			
; GENERAL INFORMATION:			
; APPLICANT: LifeSpan Biosciences			
; APPLICANT: Brown, Joseph P.			
; APPLICANT: Burmer, Glenna C.			
; APPLICANT: Roush, Christine L.			
; TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS			
; FILE REFERENCE: 1920-4-4			
; CURRENT APPLICATION NUMBER: US/10/225.567A			
; CURRENT FILING DATE: 2001-12-19			
; PRIOR APPLICATION NUMBER: 60/257,144			
; PRIOR FILING DATE: 2000-12-19			
; NUMBER OF SEQ ID NOS: 2292			
; SOFTWARE: PatentIn version 3.1			
; SEQ ID NO 205			
; LENGTH: 445			
; TYPE: PRT			
; ORGANISM: Homo sapiens			
US-10-225-567A-205			
Query Match 86.8%; Score 2271; DB 14; Length 445;			
Best Local Similarity 99.5%; Pred. No. 4.2e-185;			
Matches 434; Conservative 1; Mismatches 1; Indels 0; Gaps 0;			
QY	11	MDLEDEYNNKTLATENNNTAATRNDFPVDYKSSVDDQLQYFLIGLYTFVSLIGFMGNL	70
Db	1	MDLEDEYNNKTLATENNNTAATRNDFPVDYKSSVDDQLQYFLIGLYTFVSLIGFMGNL	60
QY	71	LILMALMKRNQKTTVNFIGNLAFSDILVLFCSPPFTLTSVLLDQWFGKVMCHIMPFL	130
Db	61	LILMALMKRNQKTTVNFIGNLAFSDILVLFCSPPFTLTSVLLDQWFGKVMCHIMPFL	120
QY	131	QCYSVLVSTLILISIALVRVHMIKHPISNNLTANHGVFLIATVMTLGFALCSPPLPVFHS	190
Db	121	QCYSVLVSTLILISIALVRVHMIKHPISNNLTANHGVFLIATVMTLGFALCSPPLPVFHS	180
QY	191	VELQETFGSALLSSRYLCVESWPSDSYRIAFTISLLLVQYILPLVCLTVSHTSVCSRISC	250
Db	181	VELQETFGSALLSSRYLCVESWPSDSYRIAFTISLLLVQYILPLVCLTVSHTSVCSRISC	240
QY	251	GLSNKENRLEENEMINLTLPSSKSGPOVKLSGSHKWSYFIKKHRRYSKKTACVLPAP	310
Db	241	GLSNKENRLEENEMINLTLPSSKSGPOVKLSGSHKWSYFIKKHRRYSKKTACVLPAP	300

QY	311	ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKRSVTRIK	370
Db	301	ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKRSVTRIK	360
QY	371	KRSRSVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLI SNRHFKL VYCI CHLLGMMSCCL	430
Db	361	KRSRSVFYRLTILILVFAVSWMPLHLFHVVTDFNDNLI SNRHFKL VYCI CHLLGMMSCCL	420
QY	431	NPILYGFLNNGIQORDL 446	
Db	421	NPILYGFLNNGIKADL 436	
RESULT 12			
US-10-295-027-668			
; Sequence 668, Application US/10295027			
; Publication No. US20030232350A1			
; GENERAL INFORMATION:			
; APPLICANT: Afar, Daniel			
; APPLICANT: Aziz, Natasha			
; APPLICANT: Ginsberg, Wendy M.			
; APPLICANT: Gish, Kurt C.			
; APPLICANT: Glynnne, Richard			
; APPLICANT: Hevezi, Peter A.			
; APPLICANT: Mack, David H.			
; APPLICANT: Murray, Richard			
; APPLICANT: Watson, Susan R.			
; APPLICANT: Eos Biotechnology, Inc.			
; TITLE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and			
; FILE REFERENCE: 018501-012500US			
; CURRENT APPLICATION NUMBER: US/10/295,027			
; CURRENT FILING DATE: 2002-11-13			
; PRIOR APPLICATION NUMBER: US 09/663,733			
; PRIOR FILING DATE: 2000-09-15			
; PRIOR APPLICATION NUMBER: US 60/350,666			
; PRIOR FILING DATE: 2001-11-13			
; PRIOR APPLICATION NUMBER: US 60/335,394			
; PRIOR FILING DATE: 2001-11-15			
; PRIOR APPLICATION NUMBER: US 60/332,464			
; PRIOR FILING DATE: 2001-11-21			
; PRIOR APPLICATION NUMBER: US 60/334,393			
; PRIOR FILING DATE: 2001-11-29			
; PRIOR APPLICATION NUMBER: US 60/340,376			
; PRIOR FILING DATE: 2001-12-14			
; PRIOR APPLICATION NUMBER: US 60/347,211			
; PRIOR FILING DATE: 2002-01-08			
; PRIOR APPLICATION NUMBER: US 60/347,349			
; PRIOR FILING DATE: 2002-01-10			
; PRIOR APPLICATION NUMBER: US 60/355,250			
; PRIOR FILING DATE: 2002-02-08			
; PRIOR APPLICATION NUMBER: US 60/356,714			
; PRIOR FILING DATE: 2002-02-13			
; Remaining Prior Application data removed - See File Wrapper or PALM.			
; NUMBER OF SEQ ID NOS: 1386			
; SOFTWARE: PatentIn Ver. 2.1			
; SEQ ID NO 668			
; LENGTH: 445			
; TYPE: PRT			
; ORGANISM: Homo sapiens			
US-10-295-027-668			
Query Match 86.8%; Score 2271; DB 15; Length 445;			
Best Local Similarity 99.5%; Pred. No. 4.2e-185;			
Matches 434; Conservative 1; Mismatches 1; Indels 0; Gaps 0;			
QY	11	MDLEDEYNNKTLATENNNTAATRNDFPVDYKSSVDDQLQYFLIGLYTFVSLIGFMGNL	70
Db	1	MDLEDEYNNKTLATENNNTAATRNDFPVDYKSSVDDQLQYFLIGLYTFVSLIGFMGNL	60
QY	71	LILMALMKRNQKTTVNFIGNLAFSDILVLFCSPPFTLTSVLLDQWFGKVMCHIMPFL	130
Db	61	LILMALMKRNQKTTVNFIGNLAFSDILVLFCSPPFTLTSVLLDQWFGKVMCHIMPFL	120

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QY 131 QCVSVLSTLILISIAIVRYHMIKHPIISNNLTANHGYFLIATVTLGFAICSPLPVFHSL 190
DB 121 QCVSVLSTLILISIAIVRYHMIKHPIISNNLTANHGYFLIATVTLGFAICSPLPVFHSL 180
QY 191 VELQTFGSALLSSRYLCVESWPDSYRIAFITISLLVQYILPLVCLTVSHTSVCRSISC 250
DB 181 VELQTFGSALLSSRYLCVESWPDSYRIAFITISLLVQYILPLVCLTVSHTSVCRSISC 240
QY 251 GLSNKENLEENEMINLTLPSSKSGPOVKLSGSHKWSYFIKHHRRYSKKTACVLPAP 310
DB 241 GLSNKENLEENEMINLTLPSSKSGPOVKLSGSHKWSYFIKHHRRYSKKTACVLPAP 300
QY 311 ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKRSVTRIK 370
DB 301 ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKRSVTRIK 360
QY 371 KRSRSVFRYLITLILVFAVSWMPLHLFHVVTDFNDNLI SNRHFKLVIYCI CHLLGMSCCL 430
DB 361 KRSRSVFRYLITLILVFAVSWMPLHLFHVVTDFNDNLI SNRHFKLVIYCI CHLLGMSCCL 420
QY 431 NPILYGLFLNNGIORDL 446
DB 421 NPILYGLFLNNGIKADL 436

RESULT 13
US-10-181-906-14
; Sequence 14, Application US/10181906
; Publication No. US20040053864A1
; GENERAL INFORMATION:
; APPLICANT: Karsenty, Gerard
; APPLICANT: Amling, Michael
; APPLICANT: Ducey, Patricia
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR CONTROL OF BONE FORMATION VIA
; TITLE OF INVENTION: MODULATION OF NEUROPEPTIDE Y ACTIVITY
; FILE REFERENCE: 9142-020-999
; CURRENT APPLICATION NUMBER: US/10/181.906
; CURRENT FILING DATE: 2002-11-13
; PRIOR APPLICATION NUMBER: PCT/US01/02040
; PRIOR FILING DATE: 2001-01-22
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 14
; LENGTH: 445
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-181-906-14
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Query Match 86.8%; Score 2271; DB 15; Length 445;
Best Local Similarity 99.5%; Pred. No. 4.2e-185;
Matches 434; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 11 MDLEDEYNNKTLATENNNTAATRNDDFPVDDYKSSVDDLOQYFLIGLYTFVSLGFMGNL 70
DB 1 MDLEDEYNNKTLATENNNTAATRNDDFPVDDYKSSVDDLOQYFLIGLYTFVSLGFMGNL 60
QY 71 LILMALMKRNQKTTNVNFIENLAFSDILVLFCSPTLTSVLLDQWFGKVMCHIMPFL 130
DB 61 LILMALMKRNQKTTNVNFIENLAFSDILVLFCSPTLTSVLLDQWFGKVMCHIMPFL 120
QY 131 QCVSVLSTLILISIAIVRYHMIKHPIISNNLTANHGYFLIATVTLGFAICSPLPVFHSL 190
DB 121 QCVSVLSTLILISIAIVRYHMIKHPIISNNLTANHGYFLIATVTLGFAICSPLPVFHSL 180
QY 191 VELQTFGSALLSSRYLCVESWPDSYRIAFITISLLVQYILPLVCLTVSHTSVCRSISC 250
DB 181 VELQTFGSALLSSRYLCVESWPDSYRIAFITISLLVQYILPLVCLTVSHTSVCRSISC 240
QY 251 GLSNKENLEENEMINLTLPSSKSGPOVKLSGSHKWSYFIKHHRRYSKKTACVLPAP 310
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QY 311 ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKRSVTRIK 370
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QY 371 KRSRSVFRYLITLILVFAVSWMPLHLFHVVTDFNDNLI SNRHFKLVIYCI CHLLGMSCCL 430
DB 361 KRSRSVFRYLITLILVFAVSWMPLHLFHVVTDFNDNLI SNRHFKLVIYCI CHLLGMSCCL 420
QY 431 NPILYGLFLNNGIORDL 446
DB 421 NPILYGLFLNNGIKADL 436

RESULT 14
US-10-686-390-13
; Sequence 13, Application US/10686390
; Publication No. US20040254153A1
; GENERAL INFORMATION:
; APPLICANT: Pfizer Inc.
; APPLICANT: Maw, Graham Nigel
; APPLICANT: Wayman, Christopher Peter
; TITLE OF INVENTION: Compounds for the Treatment of Female Sexual Dysfunction
; FILE REFERENCE: PCI0343B
; CURRENT APPLICATION NUMBER: US/10/686.390
; CURRENT FILING DATE: 2003-10-15
; PRIOR APPLICATION NUMBER: US 09/708,392
; PRIOR FILING DATE: 2000-11-08
; PRIOR APPLICATION NUMBER: US 60/175,161
; PRIOR FILING DATE: 2000-03-29
; PRIOR APPLICATION NUMBER: GB 9926437.6
; PRIOR FILING DATE: 1999-11-08
; PRIOR APPLICATION NUMBER: GB 0004021.2
; PRIOR FILING DATE: 2000-02-18
; PRIOR APPLICATION NUMBER: GB 0013001.3
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: GB 0016563.9
; PRIOR FILING DATE: 2000-07-05
; PRIOR APPLICATION NUMBER: GB 0017141.3
; PRIOR FILING DATE: 2000-07-12
; PRIOR APPLICATION NUMBER: US 60/192,962
; PRIOR FILING DATE: 2000-03-29
; PRIOR APPLICATION NUMBER: US 60/217,479
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: US 60/221,014
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 13
; LENGTH: 445
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-10-686-390-13

Query Match 86.8%; Score 2271; DB 16; Length 445;
Best Local Similarity 99.5%; Pred. No. 4.2e-185;
Matches 434; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 11 MDLEDEYNNKTLATENNNTAATRNDDFPVDDYKSSVDDLOQYFLIGLYTFVSLGFMGNL 70
DB 1 MDLEDEYNNKTLATENNNTAATRNDDFPVDDYKSSVDDLOQYFLIGLYTFVSLGFMGNL 60
QY 71 LILMALMKRNQKTTNVNFIENLAFSDILVLFCSPTLTSVLLDQWFGKVMCHIMPFL 130
DB 61 LILMALMKRNQKTTNVNFIENLAFSDILVLFCSPTLTSVLLDQWFGKVMCHIMPFL 120
QY 131 QCVSVLSTLILISIAIVRYHMIKHPIISNNLTANHGYFLIATVTLGFAICSPLPVFHSL 190
DB 121 QCVSVLSTLILISIAIVRYHMIKHPIISNNLTANHGYFLIATVTLGFAICSPLPVFHSL 180
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Db 181 VELQETFGSALLSSRYLCVESWPSDSYRIAFITISLLVQVYLPLVCLTVSHTSVCRSISC 240  
Qy 251 GLSKENRLEENEMINLTLPSPKSGQVQLSGSHKWSYFIKRRRYSKKTACVLPAP 310  
Db 241 GLSKENRLEENEMINLTLPSPKSGQVQLSGSHKWSYFIKRRRYSKKTACVLPAP 300  
Qy 311 ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKSVTRIK 370  
Db 301 ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKSVTRIK 360  
Qy 371 KRSRSVFYRLTILILFAVSWMPHLHFLHVVTDFNDNLISNRHFKLVYCIHLLGMMSCCL 430  
Db 361 KRSRSVFYRLTILILFAVSWMPHLHFLHVVTDFNDNLISNRHFKLVYCIHLLGMMSCCL 420  
Qy 431 NPILYGLFNNGIQRDL 446  
Db 421 NPILYGLFNNGIKADL 436

RESULT 15  
US-09-826-509-533  
; Sequence 533, Application US/09826509  
; Publication No. US20030204073A1  
; GENERAL INFORMATION:  
; APPLICANT: Lehmann-Bruinsma, Karin  
; APPLICANT: Liaw, Chen W.  
; APPLICANT: Lin, I-Lin  
; TITLE OF INVENTION: No. US20030204073A1-Endogenous, Constitutively Activated Known G  
; FILE OF INVENTION: Protein-Coupled Receptors  
; FILE REFERENCE: AREN-207  
; CURRENT APPLICATION NUMBER: US/09/826,509  
; PRIOR FILING DATE: 2001-04-05  
; PRIOR APPLICATION NUMBER: 60/195,747  
; PRIOR FILING DATE: 2000-04-07  
; PRIOR APPLICATION NUMBER: 09/170,496  
; PRIOR FILING DATE: 1998-10-13  
; NUMBER OF SEQ ID NOS: 589  
; SOFTWARE: PatentIn Version 2.1  
; SEQ ID NO 533  
; LENGTH: 445  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
US-09-826-509-533

Query Match 86.5%; Score 2262; DB 10; Length 445;  
Best Local Similarity 99.3%; Pred.No. 2.4e-184;  
Matches 433; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 11 MDLEDEYNNKTLATENNATRNDFPVWDDYKSSVDDLQYFLIGLYTFVSLLGFMGNL 70  
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Qy 71 LILMALMKRNQKTTVNFIGNLAFSDILVVLFCSPFTLTSLVLDQWFMGKVMCHIMPFL 130  
Db 61 LILMALMKRNQKTTVNFIGNLAFSDILVVLFCSPFTLTSLVLDQWFMGKVMCHIMPFL 120

Qy 131 QCVSVLSTILISIAIVRHMTHKPISSNLTANHGYFLIATVMTLGFATCSPLVPFHS 190  
Db 121 QCVSVLSTILISIAIVRHMTHKPISSNLTANHGYFLIATVMTLGFATCSPLVPFHS 180

Qy 191 VELQETFGSALLSSRYLCVESWPSDSYRIAFITISLLVQVYLPLVCLTVSHTSVCRSISC 250  
Db 181 VELQETFGSALLSSRYLCVESWPSDSYRIAFITISLLVQVYLPLVCLTVSHTSVCRSISC 240

Qy 251 GLSKENRLEENEMINLTLPSPKSGQVQLSGSHKWSYFIKRRRYSKKTACVLPAP 310  
Db 241 GLSKENRLEENEMINLTLPSPKSGQVQLSGSHKWSYFIKRRRYSKKTACVLPAP 300

Qy 311 ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKSVTRIK 370  
Db 301 ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHELVRKSVTRIK 360

Qy 371 KRSRSVFYRLTILILFAVSWMPHLHFLHVVTDFNDNLISNRHFKLVYCIHLLGMMSCCL 430

Db 361 KRSRSVKYRLTILILFAVSWMPHLHFLHVVTDFNDNLISNRHFKLVYCIHLLGMMSCCL 420  
Qy 431 NPILYGLFNNGIQRDL 446  
Db 421 NPILYGLFNNGIKADL 436

Search completed: June 7, 2005, 18:02:53  
Job time : 151 secs

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: June 7, 2005, 17:49:36 ; Search time 41 Seconds  
(without alignments)  
1171.028 Million cell updates/sec

Title: US-09-771-956-9  
Perfect score: 2616  
Sequence: 1 MSFYSKQDYNMDLDEYIN.....KQASPVAFKINNNDNEKI 499  
Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues  
Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000  
Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : PIR\_79:.\*  
1: pir1:.\*  
2: pir2:.\*  
3: pir3:.\*  
4: pir4:.\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

SUMMARIES

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1	771.5	29.5	384	2 A45490	neuropeptide Y/pep
2	740.5	28.3	382	2 B46133	neuropeptide Y/pep
3	739.5	28.3	382	2 S27388	neuropeptide Y rec
4	696.5	26.6	366	2 S71152	neuropeptide Y/pep
5	566	21.6	349	2 S12863	G protein-coupled
6	506.5	19.4	375	2 S63685	neuropeptide Y rec
7	506	19.3	375	2 I39182	neuropeptide Y/pep
8	505	19.3	375	2 G02300	pancreatic polypep
9	458	17.5	380	2 I39187	neuropeptide Y/pep
10	404	15.4	370	1 I52315	G protein-coupled
11	387	14.8	584	2 J67809	sulfakinin recepto
12	374	14.3	436	2 J65599	cholecystokinin-A
13	372	14.2	427	2 S50150	gastric CCK-A rece
14	365.5	14.0	444	2 A42685	cholecystokinin re
15	358.5	13.7	455	2 T15622	hypothetical prote
16	355	13.6	449	2 A41738	neuropeptide Y rec
17	353.5	13.5	447	2 A47430	gastrin/cholecysto
18	353	13.5	428	2 JN0692	cholecystokinin ty
19	352.5	13.5	430	2 I51898	cholecystokinin A
20	345.5	13.2	453	2 S32817	gastrin receptor -
21	341	13.0	452	2 J24259	gastrin/cholecysto
22	331	12.7	450	2 JQ1614	gastrin receptor -
23	331	12.7	452	2 JQ1614	cholecystokinin B
24	322.5	12.3	398	1 J01059	neurokinin 2 recep
25	321.5	12.3	457	2 T29741	hypothetical prote
26	320	12.2	423	2 B40470	glucocorticoid-ind
27	315	12.0	.399	2 T16277	hypothetical prote
28	310	11.9	384	2 A41007	gastrin-releasing
29	304.5	11.6	394	2 J67209	galanin receptor -

ALIGNMENTS

RESULT 1

A45490  
neuropeptide Y/peptide YY receptor Y1 - human  
C:Species: Homo sapiens (man)  
C:Date: 21-Sep-1993 #sequence\_revision 18-Nov-1994 #text\_change 09-Jul-2004  
C:Accession: A45490; A46133; A42773  
R:Herzog, H.; Baumgartner, M.; Vivero, C.; Selbie, L.A.; Auer, B.; Shine, J. J.  
J. Biol. Chem. 268, 6703-6707, 1993  
A:Title: Genomic organization, localization, and allelic differences in the gene for the  
A:Reference number: A45490; MUID:93203272; PMID:8095935  
A:Accession: A45490  
A:Molecule type: DNA  
A:Residues: 1-384 <HER>  
A:Cross-references: UNIPROT:P25929; GB:L07615; NID:gl89284; PIDN:AAA59947.1; PID:gl89284  
R:Herzog, H.; Hort, Y.J.; Ball, H.J.; Hayes, G.; Shine, J.; Selbie, L.A.  
Proc. Natl. Acad. Sci. U.S.A. 89, 5794-5798, 1992  
A:Title: Cloned human neuropeptide Y receptor couples to two different second messenger  
A:Reference number: A46133; MUID:92335184; PMID:1312422  
A:Accession: A46133  
A:Status: preliminary; not compared with conceptual translation  
A:Molecule type: mRNA  
A:Residues: 1-384 <HE2>  
A:Note: sequence extracted from NCBI backbone (NCBI:P108538)  
R:Larhammar, D.; Blomqvist, A.G.; Yee, F.; Jazin, E.; Yoo, H.; Wahlested, C. J.  
J. Biol. Chem. 267, 10935-10938, 1992  
A:Title: Cloning and functional expression of a human neuropeptide Y/peptide YY receptor  
A:Reference number: A42773; MUID:92283782; PMID:1317848  
A:Accession: A42773  
A:Status: preliminary  
A:Molecule type: mRNA  
A:Residues: 1-384 <LAR>  
A:Cross-references: GB:M88461; NID:gl89155; PIDN:AAA73215.1; PID:gl89156  
A:Experimental source: fetal brain  
A:Note: sequence extracted from NCBI backbone (NCBIN:104735, NCBI:P104736)  
C:Genetics:  
A:Gene: GDB:NPY1R, NPYR  
A:Cross-references: GDB:L32643; OMIM:162641  
A:Map position: 4q31.3-4q32  
C:Superfamily: neurokinin 1 receptor  
C:Keywords: appetite; G protein-coupled receptor; glycoprotein; lipoprotein; thiolester  
F:37-66/Domain: transmembrane #status predicted <TM1>  
F:77-103/Domain: transmembrane #status predicted <TM2>  
F:118-136/Domain: transmembrane #status predicted <TM3>  
F:155-179/Domain: transmembrane #status predicted <TM4>  
F:209-232/Domain: transmembrane #status predicted <TM5>  
F:261-286/Domain: transmembrane #status predicted <TM6>  
F:300-323/Domain: transmembrane #status predicted <TM7>  
F:113-198/bisulfide bonds: #status predicted  
F:186/Binding site: carboxylate (Asn) (covalent) #status predicted  
F:338/Binding site: palmitate (Cys) (covalent) #status predicted

30 302.5 11.6 423 2 JC7677  
31 300 11.5 384 1 S00516  
32 300 11.5 443 2 D40470  
33 299.5 11.4 407 2 S20304  
34 298 11.4 519 2 S17783  
35 297.5 11.4 365 2 T20184  
36 295.5 11.3 390 2 B88684  
37 295.5 11.3 407 1 JQ1274  
38 295 11.3 539 2 T27559  
39 294.5 11.3 349 2 I59336  
40 293.5 11.2 407 2 A34357  
41 293 11.2 465 1 JQ1517  
42 292 11.2 357 2 JC7319  
43 292 11.2 407 2 S23510  
44 292 11.2 452 2 A34916  
45 291 11.1 391 2 T32714

allatostatin recep  
neurokinin 2 recep  
glucocorticoid-ind  
neurokinin 1 recep  
tachykinin recepto  
hypothetical prote  
protein AC7.1 (imp  
neurokinin 1 recep  
hypothetical prote  
galanin receptor 1  
neurokinin 1 recep  
neurokinin 3 recep  
neurokinin 1 recep  
neurokinin 3 recep  
hypothetical prote





Db 257 -----TKRINMLSLTWAPAVCWLPITIENTVFDWNHQHQAATCNHLLFLCHLTAM 309

Qy 426 MSCCLNPLLYGLNNGIORDFNFCDFRSRDDYETIAMSTMHTDVSKTSLKQASPV 485

Db 310 ISTCVNPIFYGLNKNFQDLQFFNFCDFRSRDDYETIAMSTMHTDVSKTSLKQASPV 369

Qy 486 AFKKINNDREKI 499

Db 370 AFKKISMN-DNEKV 382

RESULT 4

S71152

neuropeptide Y/peptide YY receptor Y1 - African clawed frog

C:Species: Xenopus laevis (African clawed frog)

C:Date: 27-Oct-1996 #sequence\_revision 13-Mar-1997 #text\_change 09-Jul-2004

C:Accession: S71152; S55924

R:Martens, G.J.; Blomqvist, A.G.; Roubos, E.W.; Larhammar, D.

submitted to the EMBL Data Library, November 1993

A:Description: Cloning and sequencing of an neuropeptide YY receptor from Xenopus laevis

A:Reference number: S71152

A:Accession: S71152

A:Molecule type: mRNA

A:Residues: 1-366 <MAR>

A:Cross-references: UNIPROT:P34992; EMBL:L25416; NID:G409169; PIDN:AAA49918.1; PID:G40918.1

A:Experimental source: brain, hypothalamus

R:Blomqvist, A.G.; Roubos, E.W.; Larhammar, D.; Martens, G.J.M.

Biochim. Biophys. Acta 1261, 439-441, 1995

A:Title: Cloning and sequence analysis of a neuropeptide Y/peptide YY receptor Y1 cDNA from Xenopus laevis

A:Reference number: S55924; MUID:95260870; PMID:7742373

A:Accession: S55924

A>Status: preliminary; nucleic acid sequence not shown

A:Molecule type: mRNA

A:Residues: 1-278, 'T', 280-366 <BLO>

A:Cross-references: EMBL:L25416; NID:G409169

C:Superfamily: neurokinin 1 receptor

C:Keywords: G protein-coupled receptor; transmembrane protein

Query Match 26.6%; Score 696.5; DB 2; Length 366;

Best Local Similarity 32.6%; Pred. No. 4.4e-48;

Matches 154; Conservative 76; Mismatches 127; Indels 115; Gaps 8;

Qy 19 YNKLTATENNTAATNSDFPVMDDYKSSVDLDQYFLIGL-YTFVSLGLFMGNLILMALM 77

Db 6 YFENLSVENNIG--NITFPISDCALPLP--MIFTLALAYGAVILGSLGNLALIIIL 61

Qy 78 KKRQKTTVFNLIQNLAFSDILVLCFSPFTLTSLVDQWVGKVMCHIMPQCVSLV 137

Db 62 KQKEMRNVTNLIIVNLSFSDLLATIMCLPFTLIYTLMDHWIFGEVCKLNEYIQCVSVT 121

Qy 138 STLILISTAIIVRYHMKHPISNNLTANHGYFLIATVWTLGFAICSPLPVHSLVELQETF 197

Db 122 SIFSLVLIAIERHQIILNPRGWRPNRRHAYIGITVWLVAVASSLPFVIYQ 179

Qy 198 GSALLSS---RYLCVESPFSDSYRIAFTISLLVQYILPLVCLTVSHTSVCSISGLSN 254

Db 180 KNISLDSYIGKYVCLDEPDKFRLSYTTLFILQYGLPLCFIFVCYTKI----- 229

Qy 255 KENRLEENEMINLTLPKSKSGPQVKGSLGSHKWSYFPIKRRRYSKKTACVLPAPEPS 314

Db 230 -----FLRLKRR----- 236

Qy 315 QENHSRIILPENFGSVRSQSSSKFIPGVPTCTFEIKPENSDVHRLVKRSVTRIKKESR 374

Db 237 -----NNMDKIRDNKYRSSETKR-- 255

Qy 375 SVFVRLTILILVFAVWMLHLFHVVTDFNDNLISNRHFKLVYCIICHLGLMWSCLNPI 434

Db 256 -INIMLLSIVGFALCWLPFPFIFNLVFDNNEAVATCNHLLFLCHLTAMISTCVNPIF 314

Qy 435 YGFLNNGIQDLQFFNFCDFRSRDDYETIAMSTMHTDVSKTSLKQASPV 486

Db 315 YGFLNKNFQDLQFFNFCDFRSRDDYETIAMSTMHTDVSKTSLKQASPIA 366

RESULT 5

S12863

G protein-coupled receptor FC5 - rat

C:Species: Rattus norvegicus (Norway rat)

C:Date: 12-Feb-1993 #sequence\_revision 12-Feb-1993 #text\_change 09-Jul-2004

C:Accession: S12863; S19101

R:Eva, C.; Keinänen, K.; Monyer, H.; Seeburg, P.; Sprengel, R.

FEBS Lett. 271, 81-84, 1990

A:Title: Molecular cloning of a novel G protein-coupled receptor that may belong to the A family

A:Reference number: S12863; MUID:91032093; PMID:2172008

A:Accession: S12863

A:Molecule type: mRNA

A:Residues: 1-349 <EVA>

A:Cross-references: UNIPROT:P21555; EMBL:Z11504

R:Krause, J.; Eva, C.; Seeburg, P.; Sprengel, R.

submitted to the EMBL Data Library, November 1991

A:Description: Pharmacological and Transduction Properties of a Recombinantly Expressed G Protein-coupled Receptor

A:Reference number: S19101

A:Accession: S19101

A:Molecule type: mRNA

A:Residues: 1-343, DDYETIAMSTMHTDVSKTSLKQASPVAFKKISNNDNEKI' <KRA>

A:Cross-references: EMBL:Z11504; NID:957636; PIDN:CAA77579.1; PID:957637

C:Superfamily: neurokinin 1 receptor

C:Keywords: G protein-coupled receptor; glycoprotein; phosphoprotein; transmembrane protein

F:39-61/Domain: transmembrane #status predicted <TM1>

F:73-93/Domain: transmembrane #status predicted <TM2>

F:114-135/Domain: transmembrane #status predicted <TM3>

F:155-175/Domain: transmembrane #status predicted <TM4>

F:213-231/Domain: transmembrane #status predicted <TM5>

F:262-285/Domain: transmembrane #status predicted <TM6>

F:299-322/Domain: transmembrane #status predicted <TM7>

F:2,11,17/Binding site: carboxylate (Asn) (covalent) #status predicted

F:346/Binding site: phosphate (Thr) (covalent) #status predicted

Query Match 21.6%; Score 566; DB 2; Length 349;

Best Local Similarity 28.4%; Pred. No. 1.1e-37;

Matches 129; Conservative 73; Mismatches 126; Indels 126; Gaps 9;

Qy 20 NKTLL-ATENNTA---ATRNSDFPVDDYKSSVDLDQYFLIGLYTF-----VSLGLGFMG 68

Db 2 NSTLSFRVENVYSHVNVSENPFLAFEN-----DCHLPLAVIETLALAYGAVILGVS 56

Qy 69 NLLTLMALMKRNQKTTVFNLIQNLAFSDILVLCFSPFTLTSLVDQWVGKVMCHIMP 128

Db 57 NLAUIIILKQKEMRNVTNLIIVNLSFSDLLVAVMCLPFTFVYTLMDHWVFGETMCKLNP 116

Qy 129 FLQCVSVLSTLIISIAIVRYHMKHPISNNLTANHGYFLIATVWTLGFAICSPLPVHF 188

Db 117 FVQCVSITVTSFSLVLAVERHQIILNPRGWRPNRRHAYIGITVWLVAVASSLPFVIYQ 176

Qy 189 SLVLEQETFGSALLSS---RYLCVESPFSDSYRIAFTISLLVQYILPLVCLTVSHTSV 245

Db 177 ILTD--EPFQNVSLAFAFKDYVCFPSDSHRLSYTTLILVQYFGPLCFIFCYFKI- 233

Qy 246 RSISGCLSNKENLEENEMINLTLPKSKSGPQVKGSLGSHKWSYFPIKRRRYSKKTAC 305

Db 234 -----YIRLKRNNMDK----- 246

Qy 306 VLPAPERPSQENHSRIILPENFGSVRSQSSSKFIPGVPTCTFEIKPENSDVHRLVKRS 365

Db 247 -----IRDSKYRSE----- 256

Qy 366 VTRIKKRSRSVYFRLTILILVFAVWMLHLFHVVTDFNDNLISNRHFKLVYCIICHLGLM 425

Db 257 -----TKRINVMLLSIVVAFVAVCWLPPLATFNTVFDNHNQIATCNHLLFLCHLTAM 309

Qy 426 MSCCLNPLLYGLNNGIQDLQFFNFCDFRSRDDYETIAMSTMHTDVSKTSLKQASPIA 459

Db 310 ISTCVNPIFYGLNKNFQDLQFFNFCDFRSRDDYETIAMSTMHTDVSKTSLKQASPIA 343

## RESULT 6

S63685  
neuropeptide Y receptor D type - mouse  
C;Species: Mus musculus (house mouse)  
C;Date: 20-Jul-1996 #sequence\_revision 13-Mar-1997 #text\_change 09-Jul-2004  
C;Accession: S63685  
R;Gregor, P.; Millham, M.L.; Feng, Y.; DeCarr, L.B.; McCaleb, M.L.; Cornfield, L.J.  
FEBS Lett. 381, 58-62, 1996  
A;Title: Cloning and characterization of a novel receptor to pancreatic polypeptide, a member of the GPCR family  
A;Reference number: S63685; MUID:96193913; PMID:8641440  
A;Accession: S63685  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-375 <RES>  
A;Cross-references: UNIPROT:Q61041; EMBL:U40189; NID:g1223969; PIDN:AAC52442.1; PID:g1223969  
C;Superfamily: neurokinin 1 receptor

Query Match 19.4%; Score 506.5; DB 2; Length 375;  
Best Local Similarity 25.6%; Pred. No. 7.2e-33;  
Matches 115; Conservative 73; Mismatches 137; Indels 125; Gaps 6;

QY 49 DLQYFLIGLYTFVSLGLGFMGNLLILMALMKRNQKTTVNFILGNLAFSDILVLFCSPT 108  
DB 39 ELAFLIITTSYISITILGVGLNCLIFVTTRQKESNVNLLIANLAFSDFLMCLLCQPLT 98  
QY 109 LTSVLLDQWFGKVMCHIMPFLQCVSLVSTLILISIAIVRYHMIKHPISNNLTANHGYF 168  
DB 99 VTYTINDYWFGEVLCKMTFIOCMSTVTSILSLVALERHQLIINPTGWKPSISQAYL 158  
QY 169 LIATVMTLGFALCPSLPVPHSLVE---PVFH---SLVELQETFGSALLSRYLCVSWPSDSY 217  
DB 159 GIVVINFISCLSLPLFLANSTLNDLFHNSKVV-----FLEKVVCFVSWSDHH 210  
QY 218 RIATFISLLVQYILPLVCLVTSHTSVCRSISCSLGNKENLENEMINLTLPKSKGP 277  
DB 211 RLIVTTELLFOYCIPLAFILVCYRIYQRL-----KRNSM---LMTWTAFVLMPLHVF 284  
QY 278 QVLSGSHKWSYFIKHHRRYSKKTACVLPAPERPSQENHSRILPENFGSVRSQSSSS 337  
DB 242 -----QROKHVFHAHACSSRAGOM----- 260  
QY 338 KPIPGVPTCFEIKPEENSDVHELVRKRSVTRIKRSRVFVRLTILVFAVSWMPLHLF 397  
DB 261 -----KRNSM---LMTWTAFVLMPLHVF 284  
QY 398 HVTDFDNLISNRHFKLVYICHLGMMSCCLNPILYGLFNLNGIQRDLOFFNFCDFRS 457  
DB 285 NTLDEWYQEAIPACHGNLIFLMCHLLAMASTCVNPFYIGFLNFKKDIKALVLTCHRS 344  
QY 458 RDDDYETIAMSTWTDYSKLSKQASPVAF 487  
DB 345 PQGESEHLPLSTVHTDLSKSGMRMGSKSNF 374

## RESULT 7

I39182  
neuropeptide Y/peptide YY receptor Y4 - human  
C;Species: Homo sapiens (man)  
C;Date: 01-Mar-1996 #sequence\_revision 01-Mar-1996 #text\_change 09-Jul-2004  
C;Accession: I39182  
R;Bard, J.A.; Walker, M.W.; Branchek, T.A.; Weinshank, R.L.  
J. Biol. Chem. 270, 26762-26765, 1995  
A;Title: Cloning and functional expression of a human Y4 subtype receptor for pancreatic polypeptide  
A;Reference number: I39182; MUID:96070761; PMID:7592911  
A;Accession: I39182  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-375 <RES>  
A;Cross-references: UNIPROT:P50391; EMBL:U35232; NID:g1063629; PIDN:AAC50280.1; PID:g1063629  
C;Superfamily: neurokinin 1 receptor  
C;Keywords: appetite

Query Match 19.3%; Score 506; DB 2; Length 375;  
Best Local Similarity 25.2%; Pred. No. 7.9e-33;  
Matches 112; Conservative 85; Mismatches 133; Indels 114; Gaps 7;

QY 49 DLQYFLIGLYTFVSLGLGFMGNLLILMALMKRNQKTTVNFILGNLAFSDILVLFCSPT 108  
DB 39 DVMVFIVTSYISITVVGVLGNCLMCVTRQKEKANVTNLLIANLAFSDFLMCLLCQPLT 98  
QY 109 LTSVLLDQWFGKVMCHIMPFLQCVSLVSTLILISIAIVRYHMIKHPISNNLTANHGYF 168  
DB 99 AVTYTINDYWFGEVLCKMTFIOCMSTVTSILSLVALERHQLIINPTGWKPSISQAYL 158  
QY 169 LIATVMTLGFALCPSLPVPHSLVE---LQETFGSAL--LSSRYLCVSWPSDSYRIAPTIS 224  
DB 159 GIVLIWVIACVLSLPP-LANSILENV/HKNHSALEFLADKVVCTESWPLAHHRTIYTF 217  
QY 225 LLLVQYILPLVCLVTSHTSVCRSISCSLGNKENLENEMINLTLPKSKGPOVKLSGS 284  
DB 218 LLLFOYCLPLGFLVVCYARIYR-----RLQQRGV-----F 248  
QY 285 HKWSYFIKHHRRYSKKTACVLPAPERPSQENHSRILPENFGSVRSQSSSKFIPGVP 344  
DB 249 HKGTYSLRAGHKQ----- 262  
QY 345 TCPEIKPEENSDVHELVRKRSVTRIKRSRVFVRLTILVFAVSWMPLHLFHVVTDFN 404  
DB 263 -----VNVVLVWVAFVLMPLHVNLSLEDWH 291  
QY 405 DNLISNRHFKLVYICHLGMMSCCLNPILYGLFNLNGIQRDLOFFNFCDFRSDDYET 464  
DB 292 HEAIPICHGNLIFLVCHLLAMASTCVIPIFYIGFLNFKKEIKALVLTQOSAPLESEH 351  
QY 465 IAMSTWTDYSKLSK-----QASPV 415  
DB 352 LPLSTVHTVTSKSGSLRSORSNPI 3'5

## RESULT 8

G02300  
pancreatic polypeptide receptor - human  
C;Species: Homo sapiens (man)  
C;Date: 21-Dec-1996 #sequence\_revision 06-Jun-1997 #text\_change 09-Jul-2004  
C;Accession: G02300  
R;Van, H.; Yang, J.; Marasco, J.; Yamaguchi, K.; Brenner, S.; Collins, F.; Karbon, W.  
submitted to the EMBL Data Library, December 1995  
A;Reference number: H01018  
A;Accession: G02300  
A;Status: preliminary;  
A;Molecule type: mRNA  
A;Residues: 1-375 <YAN>  
A;Cross-references: UNIPROT:P50391; EMBL:U42387; NID:g1314327; PIDN:AAB07759.1; PID:g1314327  
C;Superfamily: neurokinin 1 receptor

Query Match 19.3%; Score 505; DB 2; Length 375;  
Best Local Similarity 25.2%; Pred. No. 9.5e-33;  
Matches 112; Conservative 85; Mismatches 133; Indels 114; Gaps 7;

QY 49 DLQYFLIGLYTFVSLGLGFMGNLLILMALMKRNQKTTVNFILGNLAFSDILVLFCSPT 108  
DB 39 DVMVFIVTSYISITVVGVLGNCLMCVTRQKEKANVTNLLIANLAFSDFLMCLLCQPLT 98  
QY 109 LTSVLLDQWFGKVMCHIMPFLQCVSLVSTLILISIAIVRYHMIKHPISNNLTANHGYF 168  
DB 99 SVTYTINDYWFGEVLCKMTFIOCMSTVTSILSLVALERHQLIINPTGWKPSISQAYL 158  
QY 169 LIATVMTLGFALCPSLPVPHSLVE---LQETFGSAL--LSSRYLCVSWPSDSYRIAPTIS 224  
DB 159 GIVLIWVIACVLSLPP-LANSILENV/HKNHSALEFLADKVVCTESWPLAHHRTIYTF 217  
QY 225 LLLVQYILPLVCLVTSHTSVCRSISCSLGNKENLENEMINLTLPKSKGPOVKLSGS 284  
DB 218 LLLFOYCLPLGFLVVCYARIYR-----RLQQRGV-----F 248





A;Reference number: Z18378  
A;Accession: T15822  
A;Status: preliminary; translated from GB/EMBL/DDBJ  
A;Molecule type: DNA  
A;Residues: 1-455 <MAR>  
A;CROSS-references: UNIPROT:Q18179; EMBL:U41028; NID:g1086712; PID:g1086716; PIDN:AAA82323  
C;Genetics:  
A;Gene: CBSP:C25G6.5  
A;Introns: 37/3; 87/3; 137/2; 203/3; 260/2; 292/3; 346/2; 402/2  
C;Superfamily: neurokinin 1 receptor



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OM protein - protein search, using sw model

Run on: June 7, 2005, 17:48:51 ; Search time 178 Seconds  
(without alignments)  
1435.548 Million cell updates/sec

Title: US-09-771-956-9  
Perfect score: 2616  
Sequence: 1 MSFYSKQDYNMDLEDEYN.....KQASPVAFKINNDNEKI 499

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 1612378

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : UniProt\_03.\*  
1: uniprot\_sprot.\*  
2: uniprot\_trembl.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2326	88.9	455	1 NYSR_HUMAN	Q15761 homo sapien
2	2262	86.5	445	2 Q9GK73	Q9GK73 macaca mula
3	2188	83.6	446	2 Q925F1	Q925F1 cavia porce
4	2177	83.2	446	1 NYSR_CANFA	O62729 canis famil
5	2036.5	77.8	456	1 NYSR_RAT	Q63634 rattus norv
6	2022	77.3	466	1 NYSR_MOUSE	O70342 mus musculu
7	1976	75.5	446	1 NYSR_PIG	O97969 sus scrofa
8	1603.5	61.3	443	2 Q8QFM2	Q8QFM2 gallus gall
9	771.5	29.5	384	1 NYSR_HUMAN	P25929 homo sapien
10	761	29.1	382	1 NYSR_CANFA	O02813 canis famil
11	752	28.7	383	2 Q9GK75	Q9GK75 macaca mula
12	740.5	28.3	382	1 NYSR_RAT	P21555 rattus norv
13	740	28.3	383	1 NYSR_PIG	O02835 sus scrofa
14	739.5	28.3	382	1 NYSR_MOUSE	Q04573 mus musculu
15	724.5	27.7	383	1 NYSR_CANFA	O9WVD0 cavia porce
16	707.5	27.0	385	2 Q8QFM1	Q8QFM1 gallus gall
17	696.5	26.6	366	1 NYSR_XENLA	P34992 xenopus lae
18	617.5	23.6	377	2 Q73733	O73733 brachydanio
19	582.5	22.3	373	2 Q6Y6A5	Q6Y6A5 squalus aca
20	558	21.3	348	2 Q6Y6A4	Q6Y6A4 squalus aca
21	546	20.9	371	1 NYSR_MOUSE	O61212 mus musculu
22	545.5	20.9	371	1 NYSR_RABIT	P79217 oryctolagus
23	536.5	20.5	377	2 Q8QGM3	Q8QGM3 gallus gall
24	512.5	19.6	371	2 Q6Y6A6	Q6Y6A6 squalus aca
25	512	19.6	365	2 Q8UVW7	Q8UVW7 lampetra fl
26	511	19.5	375	1 NYSR_RAT	Q63447 rattus norv
27	506.5	19.4	375	1 NYSR_MOUSE	Q61041 mus musculu
28	506	19.3	375	1 NYSR_HUMAN	P50391 homo sapien
29	506	19.3	375	2 Q6FH06	Q6FH06 homo sapien
30	504.5	19.3	375	2 Q6YHV0	Q6YHV0 macaca mula
31	503.5	19.2	374	2 Q9YHX1	Q9YHX1 gadus morhua

32	503	19.2	375	2	O57463	O57463 brachydanio
33	502.5	19.2	375	2	Q8BZF9	Q8BZF9 mus musculu
34	496.5	19.0	375	2	O97505	O97505 sus scrofa
35	489	18.7	372	2	O922D4	O922D4 cavia porce
36	478	18.3	373	2	O73734	O73734 brachydanio
37	470.5	18.0	385	1	NY2R_CHICK	Q9DDN6 gallus gall
38	467.5	17.9	381	2	Q8BWW1	Q8BWW1 mus musculu
39	467.5	17.9	385	1	NY2R_MOUSE	P97295 mus musculu
40	464.5	17.8	381	2	Q9ERC0	Q9ERC0 rattus norv
41	459	17.5	382	1	NY2R_PIG	O02836 sus scrofa
42	458	17.5	381	1	NY2R_HUMAN	P43146 homo sapien
43	458	17.5	381	1	NY2R_MACMU	Q9GK74 macaca mula
44	458	17.5	381	2	Q6AZZ6	Q6AZZ6 homo sapien
45	455	17.4	372	2	Q6PR57	Q6PR57 brachydanio

## ALIGNMENTS

RESULT 1  
NY5R\_HUMAN  
ID\_NYSR\_HUMAN STANDARD; PRT; 455 AA.  
AC Q15761; Q92916;  
DT 01-NOV-1997 (Rel. 35, Last sequence update)  
DT 01-NOV-1997 (Rel. 35, Last sequence update)  
DT 25-OCT-2004 (Rel. 45, Last annotation update)  
DE Neuropeptide Y receptor type 5 (NPY5-R) (NPY-Y5 receptor) (Y5 receptor) (NPY5).  
DE Name=NPY5R; Synonyms=NPYR5;  
OS Homo sapiens (Human).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
OX NCBI\_TaxID=9606;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=Hippocampus;  
RX MEDLINE=96317589; PubMed=8700207; DOI=10.1038/382168a0;  
RA Batzl-Hartmann C., Smith K.E., Vaysee P., Durkin M.M., Laz T.M., Linemeyer D.L., Schaffhauser A.O., Whitebread S., Hofbauer K.G., Taber R.I., Branchek T.A., Weinshank R.B.;  
RT "A receptor subtype involved in neuropeptide-Y-induced food intake.";  
RL Nature 382:168-171(1996).  
RN [2]  
RP SEQUENCE OF 11-455 FROM N.A.  
RX MEDLINE=96421636; PubMed=8824284; DOI=10.1074/jbc.271.42.26044;  
RA Hu Y., Bloomquist B.T., Cornfield L.J., Decarr L.B., Flores-Riveros J.R., Friedman L., Jiang P., Lewis-Higgins L., Sadlowaki Y., Schaefer J., Velazquez N., McCaleb M.L.;  
RT "Identification of a novel hypothalamic neuropeptide Y receptor associated with feeding behavior.";  
RL J. Biol. Chem. 271:26315-26319(1996).  
RN [3]  
RP SEQUENCE OF 11-455 FROM N.A.  
RX MEDLINE=97312686; PubMed=9169127; DOI=10.1006/geno.1997.4684;  
RA Herzog H., Darby K., Ball H., Hott Y., Beck-Sickinger A., Shine J.;  
RT "Overlapping gene structure of the human neuropeptide Y receptor subtypes Y1 and Y5 suggests coordinate transcriptional regulation.";  
RL Genomics 41:315-319(1997).  
RN [4]  
RP SEQUENCE OF 11-455 FROM N.A.  
RX Kopatz S.A., Aronstam R.S., Sharma S.V.;  
RT "cDNA clones of human proteins involved in signal transduction sequenced by the Guthrie cDNA resource center (www.cdna.org).";  
RL Submitted (JUN-2003) to the EMBL/Genbank/DBJ databases.  
CC -!- FUNCTION: Receptor for neuropeptide Y and peptide YY. The activity of this receptor is mediated by G proteins that inhibit adenylyate cyclase activity. Seems to be associated with food intake. Could be involved in feeding disorders.  
CC -!- SUBCELLULAR LOCATION: Integral membrane protein.  
CC -!- TISSUE SPECIFICITY: Brain; hypothalamus.  
CC -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
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 CC -----

DR EMBL; U56079; AAC50623.1; -;  
 DR EMBL; U66275; AAC50741.1; -;  
 DR EMBL; U94320; AAC51295.1; -;  
 DR EMBL; AY322538; AAP84351.1; -;  
 DR Genex; HGNC:7958; NPY5R.  
 DR MIM; 602001; -;  
 BR GO; GO:0005887; C: integral to plasma membrane; TAS.  
 DR GO; GO:0004983; F: neuropeptide Y receptor activity; TAS.  
 DR GO; GO:0007186; P: G-protein coupled receptor protein signalin. .; TAS.  
 DR InterPro; IPR000276; GPCR\_Rhodopsn.  
 DR InterPro; IPR000393; NPV5\_receptor.  
 DR InterPro; IPR000611; NPY\_receptor.  
 DR Pfam; PF00001; 7tm\_1; 1.  
 DR PRINTS; PR00237; GPCR\_RHODOPSIN.  
 DR PROSITE; PS0262; G\_PROTEIN\_RECEP\_F1\_1; FALSE\_NEG.  
 DR PROSITE; PS0262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
 KW G-protein coupled receptor; Glycoprotein; Lipoprotein; Palmitate;  
 KW phosphorylation; Transmembrane.  
 FT DOMAIN 1 50 Extracellular (Potential).  
 FT TRANSMEM 51 72 1 (Potential).  
 FT DOMAIN 73 84 Cytoplasmic (Potential).  
 FT TRANSMEM 85 105 2 (Potential).  
 FT DOMAIN 106 125 Extracellular (Potential).  
 FT TRANSMEM 126 147 3 (Potential).  
 FT DOMAIN 148 167 Cytoplasmic (Potential).  
 FT TRANSMEM 168 188 4 (Potential).  
 FT DOMAIN 189 220 Extracellular (Potential).  
 FT TRANSMEM 221 242 5 (Potential).  
 FT DOMAIN 243 378 Cytoplasmic (Potential).  
 FT TRANSMEM 379 401 6 (Potential).  
 FT DOMAIN 402 414 Extracellular (Potential).  
 FT TRANSMEM 415 438 7 (Potential).  
 FT DOMAIN 439 455 Cytoplasmic (Potential).  
 FT CARBOHYD 20 20 N-linked (GlcNAc. .) (Potential).  
 FT CARBOHYD 27 27 N-linked (GlcNAc. .) (Potential).  
 FT DISULFID 124 208 By similarity.  
 FT LIPID 452 452 S-palmitoyl cysteine (Potential).  
 SQ SEQUENCE 455 AA; 51990 MW; 95F2747E5F8F87 CRC64;

Query Match 88.9%; Score 2326; DB 1; Length 455;  
 Best Local Similarity 99.6%; Pred. No. 2.1e-147;  
 Matches 444; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MSFYSKQDYNMDLDELDEYNTKLTATNTAATRNDFPVWDDYKSSVDDLYQFLIGLYTF 60  
 Db 1 MSFYSKQDYNMDLDELDEYNTKLTATNTAATRNDFPVWDDYKSSVDDLYQFLIGLYTF 60  
 Qy 61 VSLGFGNGLLILMALMKRKNQKTTVNFIGNLAFSDILVVLFCSPFTLTSVLLDQMF 120  
 Db 61 VSLGFGNGLLILMALMKRKNQKTTVNFIGNLAFSDILVVLFCSPFTLTSVLLDQMF 120  
 Qy 121 KVMCHIMPFLQCVSVLSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVMTLGF 180  
 Db 121 KVMCHIMPFLQCVSVLSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVMTLGF 180  
 Qy 181 CSPLPVHSLVELQETFGSALLSSRYLCVESWPSDSYRIAFITSLLLVQVILPLVCLTV 240  
 Db 181 CSPLPVHSLVELQETFGSALLSSRYLCVESWPSDSYRIAFITSLLLVQVILPLVCLTV 240  
 Qy 241 HTSVCRISICGLSNKENRLEENEMINTLHPSKSGQVVLSSGHWKSYFIKKHRRYS 300  
 Db 241 HTSVCRISICGLSNKENRLEENEMINTLHPSKSGQVVLSSGHWKSYFIKKHRRYS 300  
 Qy 301 KKTACVLPAPERPSQENHRIIPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHEL 360  
 Db 301 KKTACVLPAPERPSQENHRIIPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHEL 360

Db 301 KKTACVLPAPERPSQENHRIIPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHEL 360  
 Qy 361 RVKRSVTRIKKRGRSVFYRLTILILVAVSWMPHLHFVHVVTDNDNLISNRHFKLYVCIC 420  
 Db 361 RVKRSVTRIKKRGRSVFYRLTILILVAVSWMPHLHFVHVVTDNDNLISNRHFKLYVCIC 420  
 Qy 421 HLLGMSCCLNPILYGLFANNQIORDL 446  
 Db 421 HLLGMSCCLNPILYGLFANNQIORDL 446

## RESULT 2

Q9GK73  
 ID Q9GK73 PRELIMINARY; PRT; 445 AA.  
 AC Q9GK73;  
 DT 01-MAR-2001 (Tremblurel. 16, Created)  
 DT 01-MAR-2001 (Tremblurel. 16, Last sequence update)  
 DT 01-JUN-2003 (Tremblurel. 24, Last annotation update)  
 DE Neuropeptide Y receptor Y5.  
 OS Macaca mulatta (Rhesus macaque).  
 OC Sukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Euthera; Primates; Catarrhini; Cercopitheciidae;  
 OC Cercopitheciinae; Macaca.  
 OX NCBI\_TaxID=9544;  
 RN [1]  
 SEQUENCE FROM N.A.  
 RX MEDLINE=21184974; PubMed=11287088; DOI=10.1016/S0196-9781(01)00336-9;  
 RA Gehlert D.R., Yang P., George C., Wang Y., Schober D.,  
 RA Gackenhimer S., Johnson D., Beavert L.S., Gadski R.A., Baez M.;  
 RT "Cloning and characterization of Rhesus monkey neuropeptide Y receptor  
 subtypes (1).";  
 RL Peptides 22:343-350 (2001).  
 DR EMBL; AF303091; AAG40773.1; -;  
 DR GO; GO:0016021; C: integral to membrane; IEA.  
 DR GO; GO:0004983; F: neuropeptide Y receptor activity; IEA.  
 DR GO; GO:0004872; F: receptor activity; IEA.  
 DR GO; GO:0001584; F: rhodopsin-like receptor activity; IEA.  
 DR GO; GO:0007218; P: neuropeptide signaling pathway; IEA.  
 DR InterPro; IPR000276; GPCR\_Rhodopsn.  
 DR InterPro; IPR000393; NPV5\_receptor.  
 DR InterPro; IPR000611; NPY\_receptor.  
 DR Pfam; PF00001; 7tm\_1; 1.  
 DR PRINTS; PR00237; GPCR\_RHODOPSIN.  
 DR PRINTS; PR01016; NRPEPTIDEYR.  
 DR PRINTS; PR01012; NRPEPTIDEYR.  
 DR PROSITE; PS0262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
 KW Neuropeptide; Receptor.  
 SQ SEQUENCE 445 AA; 50812 MW; AEDACD259675BC93 CRC64;

Query Match 86.5%; Score 1262; DB 2; Length 445;  
 Best Local Similarity 99.1%; Pred. No. 3.9e-143;  
 Matches 432; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 11 MDLDEYNTKLTATNTAATRNDFPVWDDYKSSVDDLYQFLIGLYTFVSLGPMGNL 70  
 Db 1 MDLDEYNTKLTATNTAATRNDFPVWDDYKSSVDDLYQFLIGLYTFVSLGPMGNL 60  
 Qy 71 LIIMALKRKNQKTTVNFIGNLAFSGILVVLFCSPFTLTSVLLDQMFQKVMCHIMPFL 130  
 Db 61 LIIMALKRKNQKTTVNFIGNLAFSGILVVLFCSPFTLTSVLLDQMFQKVMCHIMPFL 120  
 Qy 131 QCVSVLSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVMTLGFALCSPLPVHSL 190  
 Db 121 QCVSVLSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVMTLGFALCSPLPVHSL 180  
 Qy 191 VELQETFGSALLSSRYLCVESWPSDSYRIAFITSLLLVQVILPLVCLTVSHTSVCRSISC 250  
 Db 181 VELQETFGSALLSSRYLCVESWPSDSYRIAFITSLLLVQVILPLVCLTVSHTSVCRSISC 240  
 Qy 251 GLSNKENRLEENEMINTLHPSKSGE QVLSGSHKWSYFIKKHRRYSKKTACVLPAP 310  
 Db 241 GLSNKENRLEENEMINTLHPSKSGE QVLSGSHKWSYFIKKHRRYSKKTACVLPAP 300



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QY 311 ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHVELRVKRSVTRIK 370
Db 301 ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHVELRVKRSVTRIK 360
QY 371 KRSRSVFYRLTILILVFAVSWMPLHLPHVVTDFNDNLISNRHFKLVYCIHLLGMMSCCL 430
Db 361 KRSRSVFYRLTILILVFAVSWMPLHLPHVVTDFNDNLISNRHFKLVYCIHLLGMMSCCL 420
QY 431 NPILYGLNNGIQORDL 446
Db 421 NPILYGLNNGIKADL 436

RESULT 3
Q925F1
ID Q925F1 PRELIMINARY; PRT; 446 AA.
AC
DT 15-DEC-2001 (TREMELrel. 19, Created)
DT 01-DEC-2001 (TREMELrel. 19, Last sequence update)
DT 01-JUN-2003 (TREMELrel. 24, Last annotation update)
DE NPY receptor 5.
OS Cavia porcellus (Guinea pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Hystriognathi; Caviidae; Cavia.
OX NCBI_TaxID=10141;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=21184976; PubMed=11287090; DOI=10.1016/S0196-9781(01)00338-2;
RA Lundell I., Eriksson H., Marklund U., Larhammar D.;
RT "Cloning and characterization of the guinea pig neurotrophin Y
receptor Y5."
RL Peptides 22:357-363(2001).
DR EMBL; AF363240; AAKS2800.1; -.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0004983; E:neuropeptide Y receptor activity; IEA.
DR GO; GO:0004872; F:receptor activity; IEA.
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . ; IEA.
DR Pfam; PF00001; 7tm_1; 1.
DR PRINTS; PR00237; GPCRHHODPSN.
DR PRINTS; PR01016; NRPEPTIDEYR.
DR PRINTS; PR01012; NRPEPTIDEYR.
DR PROSITE; PS0262; G_PROTEIN_RECEP_F1_2; 1.
KW Receptor.
SQ SEQUENCE 446 AA; 50936 MW; 2C3984B0A90AA693 CRC64;
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Query Match 83.6%; Score 2188; DB 2; Length 446;  
Best Local Similarity 95.4%; Pred. No. 3.4e-138;  
Matches 416; Conservative 9; Mismatches 11; Indels 0; Gaps 0;

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QY 11 MDLEDEYNTKLTATENNNTAATRNDDFPVDDYKSSVDDLOVFLGLYTFVSLILGFMGNL 70
Db 1 MDLEKEYNKLTATENNNTTTRNSDDFPVDDYKSSVDDLOVFLGLYTFVSLILGFMGNL 60
QY 71 LILMALMKRQKTKTNFNLIGNLAFSDILVLFCSPPFTLTSVLLDQWFMGKVMCHIMPFL 130
Db 61 LILMALIKRQKTKTNFNLIGNLAFSDILVLFCSPPFTLTSVLLDQWFMGKVMCHIMPFL 120
QY 131 QCVSLVSTLILISIAIVRYMHKIPISNNLTANHGYFLIATVTLGFAICSPLPVFHSL 190
Db 121 QCVSLVSTLILISIAIVRYMHKIPISNNLTANHGYFLIATVTLGFAICSPLPVFHSL 180
QY 191 VELOTFGALLSSRYLCVSWPSQSYRIAFITISLLVQYILPLVCLTVSHTSVCRSISC 250
Db 191 VELOTFGALLSSRYLCVSWPSQSYRIAFITISLLVQYILPLVCLTVSHTSVCRSISC 240
QY 251 GLSKNENLEENINLTHPSKSGQVQLSGHWSYFIKHKRRYSKKTACVLPAP 310
Db 241 GLSKNENLEENINLTHPSKSGQVQLSKTHKWSYFIKHKRRYSKKTACVLPAP 300
QY 311 ERPSQENHSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHVELRVKRSVTRIK 370
Db 301 ARPSLENSRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSDVHVELRVKRSVTRIK 360
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QY 371 KRSRSVFYRLTILILVFAVSWMPLHLPHVVTDFNDNLISNRHFKLVYCIHLLGMMSCCL 430
Db 361 KRSRSVFYRLTILILVFAVSWMPLHLPHVVTDFNDNLISNRHFKLVYCIHLLGMMSCCL 420
QY 431 NPILYGLNNGIQORDL 446
Db 421 NPILYGLNNGIKADL 436

RESULT 4
NY5R_CANFA
ID NY5R_CANFA STANDARD; PRT; 446 AA.
AC O62729;
DT 15-DEC-1998 (Rel. 37, Created)
DT 15-DEC-1998 (Rel. 37, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Neuropeptide Y receptor type 5 (NPY5-R) (NPY-Y5 receptor) (Y5
receptor) (NPY5).
GN Name=NPY5R; Synonyms=NPY5;
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX NCBI_TaxID=9615;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=95017379; PubMed=9802393; DOI=10.1016/S0167-0115(98)00052-4;
RA Borowsky B., Walker M.W., Bard J., Weinshank R.L., Laz T.M.,
RA Vayssie P., Branchek T.A., Gerald C.;
RT "Molecular biology and pharmacology of multiple NPY Y5 receptor
species homologs."
RL Regul. Pept. 75:45-53(1998).
CC -!- FUNCTION: Receptor for neuropeptide Y and peptide YY. The activity
of this receptor is mediated by G proteins that inhibit adenylylate
cyclase activity. Seems to be associated with food intake. Could
be involved in feeding disorders (By similarity).
-!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
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EMBL; AF049328; AAC17838.1; -  
InterPro; IPR000276; GPCR\_Rhodpsn.  
InterPro; IPR000393; NPY5\_receptor.  
InterPro; IPR000611; NPY5\_receptor.  
Pfam; PF00001; 7tm\_1; 1.  
PRINTS; PR00237; GPCRHHODPSN.  
PROSITE; PS00237; G\_PROTEIN\_RECEP\_F1\_1; FALSE\_NEG.  
PROSITE; PS0262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
G-protein coupled receptor; Glycoprotein; Lipoprotein; Palmitate;  
Phosphorylation; Transmembrane.  
DOMAIN 1 40 Extracellular (Potential).  
TRANSMEM 41 62 1 (Potential).  
DOMAIN 63 74 Cytoplasmic (Potential).  
TRANSMEM 75 95 2 (Potential).  
DOMAIN 96 115 Extracellular (Potential).  
TRANSMEM 116 137 3 (Potential).  
DOMAIN 138 157 Cytoplasmic (Potential).  
TRANSMEM 158 178 4 (Potential).  
DOMAIN 179 210 Extracellular (Potential).  
TRANSMEM 211 232 5 (Potential).  
DOMAIN 233 368 Cytoplasmic (Potential).  
TRANSMEM 369 391 6 (Potential).  
DOMAIN 392 404 Extracellular (Potential).  
TRANSMEM 405 428 7 (Potential).  
DOMAIN 429 446 Cytoplasmic (Potential).  
CARBOHYD 10 10 N-linked (GlcNAc...) (Potential).



Db 68 MGNTLILMAVMKRNQKTTNFIENLGNLAFSDILVLFCSPTLTSLVLLQWFMGRAMCHI 127  
Qy 127 MFPLQCVSLVTLTILISTAIYRYHMKIPISNNITANHGYELIATVTLGFAICSLPLV 186  
Db 128 MFPLQCVSLVTLTILISTAIYRYHMKIPISNNITANHGYELIATVTLGFAICSLPLV 187  
Qy 187 FHSVLQVTFGSAISSLSSRYLVCVSPDSYRIAFITISLLVQYILPLVCLTVSHTSVCR 246  
Db 188 FHSVLQVTFGSAISSLSSRYLVCVSPDSYRIAFITISLLVQYILPLVCLTVSHTSVCR 247  
Qy 247 SISGLSKENLEENEMINLTHPSKSGQPVKSGSHKWSYSPFKHRRYSKTKTACV 306  
Db 248 SISGLSKENLEENEMINLTHPSKSGQPVKSGSHKWSYSPFKHRRYSKTKTACV 307  
Qy 307 LPAPRRPSHNSRILPNFSGVRSQSSSKFIPGVPTCPRIKPEENSVDHVLKRSV 366  
Db 308 LPAPAGPSOCKLAV-PENPASVRQLSPSSKVIQGVPCFVKEESDAHEMRKRSI 366  
Qy 367 TRIKRSRVFRLTILILVFAVSWMLHLFHVTDNDNLISNRHFLVYICHLGMM 426  
Db 367 TRIKRSRVFRLTILILVFAVSWMLHLFHVTDNDNLISNRHFLVYICHLGMM 426  
Qy 427 SCLNPILYGLNGIQRDLQ 447  
Db 427 SCLNPILYGLNGIKADLR 447

RESULT 6

NY5R\_MOUSE  
ID NY5R\_MOUSE STANDARD; PRT: 466 AA.  
AC O70342; O35380; O9JMK1;  
DT 15-DEC-1998 (Rel. 37, Created)  
DT 16-OCT-2001 (Rel. 40, Last sequence update)  
DT 25-OCT-2004 (Rel. 45, Last annotation update)  
DE Neuropeptide Y receptor type 5 (NPY5-R) (NPY-Y5 receptor) (Y5 receptor).  
DE receptor.  
GN Name=Npy5r; Synonyms=Npy5;  
OS Mus musculus (Mouse).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
OX NCBI\_TaxID=10090;  
[1]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=99017379; PubMed=98023393; DOI=10.1016/S0167-0115(98)00052-4;  
RA Borowsky B., Walker M.W., Bard J., Weinschank R.L., Laz T.M.,  
RA Vaysses P., Branchek T.A., Gerald C.;  
RT "Molecular biology and pharmacology of multiple NPY Y5 receptor species homologs";  
RL Regul. Pept. 75:45-53 (1998).  
RN [2]  
RP SEQUENCE FROM N.A.  
RC STRAIN=129/Sv; TISSUE=Brain;  
RA Chen H., Adams S., McWhinnie E., Bayne M., Gadski R., Zastawny R.;  
RT "Mouse neuropeptide Y Y5 receptor characterized by repeat sequence in extracellular domain";  
RL Submitted (SEP-1997) to the EMBL/GenBank/DBJ databases.  
RN [3]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=97459646; PubMed=9315606; DOI=10.1016/S0005-2736(97)00131-4;  
RA Nakamura M., Yokoyama M., Watanabe H., Matsumoto T.;  
RT "Molecular cloning, organization and localization of the gene for the mouse neuropeptide Y-Y5 receptor";  
RL Biochim. Biophys. Acta 1328:83-89 (1997).  
CC -!- FUNCTION: Receptor for neuropeptide Y and peptide YY. The activity of this receptor is mediated by G proteins that inhibit adenylate cyclase activity. Seems to be associated with food intake. Could be involved in feeding disorders (By similarity).  
CC -!- SUBCELLULAR LOCATION: Integral membrane protein.  
CC -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
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CC EMBL; AF049329; AAC17839.1; -;  
CC EMBL; AF022948; AAB81829.1; -;  
CC EMBL; AB001346; BAA89538.1; -;  
CC MGI; MGI-108082; Npy5r;  
CC GO; GO:0016020; C:membrane; IDA.  
CC GO; GO:0001602; F:pancreatic polypeptide receptor activity; IDA.  
CC GO; GO:0001601; F:peptide YY receptor activity; IDA.  
CC GO; GO:0007273; P:regulation of synapse; IMP.  
CC InterPro; IPR000276; GPCR\_Rhodopsn.  
CC InterPro; IPR000393; NPY5\_receptor.  
CC InterPro; IPR000611; NPY\_receptor.  
CC Pfam; PF00001; 7cm\_1; 1.  
CC PRINTS; PR00237; GPCRHHODOPSN.  
CC PROSITE; PS00237; G\_PROTEIN\_RECP\_F1\_1; FALSE\_NEG.  
CC PROSITE; PS00262; G\_PROTEIN\_RECP\_F1\_2; 1.  
KW G-protein coupled receptor; Glycoprotein; Lipoprotein; Palmitate; Phosphorylation; Transmembrane.  
KW DOMAIN 1 61 Extracellular (Potential).  
FT TRANSMEM 62 83 1 (Potential).  
FT DOMAIN 84 95 Cytoplasmic (Potential).  
FT TRANSMEM 96 116 2 (Potential).  
FT DOMAIN 117 136 Extracellular (Potential).  
FT TRANSMEM 137 158 3 (Potential).  
FT DOMAIN 159 178 Cytoplasmic (Potential).  
FT TRANSMEM 179 199 4 (Potential).  
FT DOMAIN 200 231 Extracellular (Potential).  
FT TRANSMEM 232 253 5 (Potential).  
FT DOMAIN 254 388 Cytoplasmic (Potential).  
FT TRANSMEM 389 411 6 (Potential).  
FT DOMAIN 412 424 Extracellular (Potential).  
FT TRANSMEM 425 448 7 (Potential).  
FT DOMAIN 449 466 Cytoplasmic (Potential).  
FT DISULFID 135 219 By similarity.  
FT LIPID 462 462 S-palmitoyl cysteine (Potential).  
FT CARBOHYD 10 10 N-linked (GLCNAc...) (Potential).  
FT CARBOHYD 17 17 N-linked (GLCNAc...) (Potential).  
FT CARBOHYD 38 38 N-linked (GLCNAc...) (Potential).  
FT CARBOHYD 39 39 N-linked (GLCNAc...) (Potential).  
FT CONFLICT 195 195 L -> F (in Ref. 1).  
FT CONFLICT 284 284 K -> Q (in Ref. 3).  
SQ SEQUENCE 466 AA; 52784 MW; B157F236EF2D4385 CRC64;  
Query Match 77.3%; Score 2022; DB 1; Length 466;  
Best Local Similarity 84.7%; Pred. No. 4.4e-127;  
Matches 388; Conservative 24; Mismatches 24; Indels 22; Gaps 2;  
Qy 11 MDLELDYNYKTLATENTTAAT-----RNSDFPVWDDYKSSVDD 49  
Db 1 MEVKLEHFNKFTVTENNTAASQNTASPAWEDYRGTEENTTAARNTAFPVWEDYRGVDD 60  
Qy 50 LQYFLIGLYTFVSLGLFGMGNLLILMALMKRNQKTTNFIENLGNLAFSDILVLFCSPTLT 109  
Db 61 LQYFLIGLYTFVSLGLFGMGNLLILMALMKRNQKTTNFIENLGNLAFSDILVLFCSPTLT 120  
Qy 110 TSVLLDQWFMFKVMCHIMPFIQCYSVLVSTLILISIAIVRYHMKIPISNNITANHGYEL 169  
Db 121 TSVLLDQWFMFKVMCHIMPFIQCYSVLVSTLILISIAIVRYHMKIPISNNITANHGYEL 180  
Qy 170 IATVTLGFAICSLPLVPFHSLSVLFQTFGSAISSLSSRYLVCVSPDSYRIAFITISLLVQ 229  
Db 181 IATVTLGFAICSLPLVPFHSLSVLFQTFGSAISSLSSRYLVCVSPDSYRIAFITISLLVQ 240  
Qy 230 YILPLVCLTVSHTSVCRSISGLSKENLEENEMINLTHPSKSGQPVKSGSHKWSY 289  
Db 241 YILPLVCLTVSHTSVCRSISGLSKENLEENEMINLTHPSKSGQPVKSGSHKWSY 300  
Qy 290 SFIKHHRRYSKTKACVLPAPEPSPQENHNSRILPENFGSVRSQSSSKFIPGVPTCFEI 349



DR GO: 0001584; F: rhodopsin-like receptor activity; IEA.  
DR GO: 0007218; P: neuropeptide signaling pathway; IEA.  
DR InterPro: IPR000276; GPCR Rhodopsin.  
DR InterPro: IPR000393; NPY5\_receptor.  
DR InterPro: IPR000611; NPY\_receptor.  
DR Pfam: PF00001; 7tm1.1.  
DR PRINTS: PR00237; GPCRHHODPSN.  
DR PRINTS: PR01016; NRPEPTIDEYR.  
DR PRINTS: PR01012; NRPEPTIDEYR.  
DR PROSITE: PS00262; G\_PROTEIN\_RECP\_F1\_2; 1.  
KW Neuropeptide; Receptor.  
SQ SEQUENCE 443 AA; 50044 MW; EF99FIA391CC092E CRC64;  
  
Query Match 61.3%; Score 1603.5; DB 2; Length 443;  
Best Local Similarity 68.7%; Pred. No. 3.8e-99;  
Matches 305; Conservative 51; Mismatches 83; Indels 5; Gaps 4;  
  
QY 11 MDLELDYNNKLTATNTAATRNDDPPWDDYKSSVDVDFGLYFLGLTYFVSLFGNGL 70  
Db 1 MDLGFQDYNT-PTKNTSATTKN--FSAWEDYKSSVDVDFGLYFLGLTYFVSLFGNGL 57  
  
QY 71 LITLMAKMKRNOKTTFNFIIGNLAFSDILVLFCSPPFTLTSLVDLQWFGKVMCHMPFL 130  
Db 58 LVLTAL-TKRQKXTIINILGNLAFSDILVLFCSPPFTLTSLVDLQWFGKVMCHMPFL 116  
  
QY 131 QCVSVLSTLILISIAIVRYHMKHPISNNLTANHGYFLIATVTLGFAICSPLEVFHSL 190  
Db 117 QCTSVLSTLILISIAAVRYRMVKYPLSNLTAKHGYFLIIVAVGCAICSPLEVFHSL 176  
  
QY 191 VELQTFGSALLSSRYLVESWPSYSRIAFITISLLVQYILPLVCLTVSHTSVCRISLC 250  
Db 177 VDLHKLTLLEALENLLCIESWPSYSRIAFITISLLVQYILPLVCLTVSHTSVCRISLC 236  
  
QY 251 GLSNKENLEENMLNLTLPSSKSGPQVLSGSHKWSYFLLKRRYRKYKKTACVLAP 310  
Db 237 RLSSKEGFQENMLNLTLPSSKSGTGAQPSHTSWSCALVRKHRYRKYKKTSTVMPAI 296  
  
QY 311 ERPSQENHRILPENFGSVRSQSSSKFIPGVPTCFEIKPEENSVDHE-LRVKRSVTRI 369  
Db 297 LRQQQDAFDRLPETSGTEKSQLSSSKFIPGVPTCFEIKPEENTFIDMITVSQIRI 356  
  
QY 370 KRSRSVYRITLILVFAVSMPLHFLHVTFDNDNLISNRHFKLVYICICHLGMGCC 429  
Db 357 KTRSRVFCRLTVLILVFGFSMPLHFLHVTFDNDNLISNRHFKLVYICICHLGMGCC 416  
  
QY 430 LNPILYGLNNGIQDLOFFENFC 453  
Db 417 LNPILYGLNNSIKADLSLIPCC 440  
  
RESULT 9  
NYLR HUMAN  
ID NYLR HUMAN STANDARD; PRT; 384 AA.  
AC P25929;  
BT 01-MAY-1992 (Rel. 22, Created)  
DT 01-MAY-1992 (Rel. 22, Last sequence update)  
DT 25-OCT-2004 (Rel. 45, Last annotation update)  
DE Neuropeptide Y receptor type 1 (NPY1-R).  
GN Name=NPY1R; Synonyms=NPYR, NPY1;  
OS Homo sapiens (Human).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
OX NCBI\_TaxID=9606;  
[1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=Brain;  
RX MEDLINE=92283782; PubMed=1317848;  
RA Lathammer D., Blomqvist A.G., Yee F., Jazin E.E., Yoo H.,  
RA Wahlestedt C.R.;  
RT "Cloning and functional expression of a human neuropeptide Y/peptide  
RT Y receptor of the Y1 type."  
RL J. Biol. Chem. 267:10935-10938(1992).  
RN [2]

RP SEQUENCE FROM N.A.  
RC TISSUE=Brain;  
RX MEDLINE=92335184; PubMed=1321422;  
RA Herzog H., Hort Y.J., Ball H.J., Hayes G., Shine J., Selbie L.A.;  
RT "Cloned human neuropeptide Y receptor couples to two different second  
RT messenger systems."  
RL Proc. Natl. Acad. Sci. U.S.A. 89:5794-5798(1992).  
RN [3]  
  
RP SEQUENCE FROM N.A.  
RC TISSUE=Blood;  
RX MEDLINE=93203272; PubMed=8095935;  
RA Herzog H., Baumgartner M., Viviero C., Selbie L.A., Auer B., Shine J.;  
RT "Genomic organization, localization, and allelic differences in the  
RT gene for the human neuropeptide Y Y1 receptor."  
RL J. Biol. Chem. 268:6703-6707(1993).  
RN [4]  
  
RP SEQUENCE FROM N.A.  
RC TISSUE=Testis;  
RX MEDLINE=22389257; PubMed=12477932; DOI=10.1073/pnas.242603899;  
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,  
RA Klausner R.D., Collins P.S., Wagner L., Shenmen C.M., Schuler G.D.,  
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,  
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,  
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,  
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,  
RA Brownstein M.J., Udwin T.B., Toshiyuki S., Carninci P., Prange C.,  
RA Raba S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,  
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,  
RA Richards D., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,  
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,  
RA Fahey J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,  
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,  
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,  
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,  
RA Butlerfield V.S.N., Krzywinski M.I., Skalska U., Smalhus D.E.,  
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;  
RT "Generation and initial analysis of more than 15,000 full-length human  
RT and mouse cDNA sequences."  
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).  
CC -!- FUNCTION: Receptor for neuropeptide Y and peptide YY. The rank  
CC order of affinity of this receptor for pancreatic polypeptides is  
CC NPY > [Pro-34] PYY, PYY and [Leu-31, Pro-34] NPY > NPY (2-36) >  
CC [Ile-31, Gln-34] PP and PYY (3-36) > PP > NPY free acid.  
CC -!- SUBCELLULAR LOCATION: Integral membrane protein.  
CC -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
CC -----  
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CC or send an email to license@isb-sib.ch).  
CC -----  
CC EMBL; M88461; AAA73215.1; -;  
CC EMBL; M84755; AAA59920.1; -;  
CC EMBL; L07614; -; NOT ANNOTATED\_CDS.  
CC EMBL; L07615; AAA59947.1; -;  
CC EMBL; BC036657; AAH36657.1; -;  
CC EMBL; A26481; CAA01819.1; -;  
CC EMBL; A26126; CAA01787.1; -;  
CC PIR; A45490; A45490.  
CC Genew: HGNC:7956; NPY1R.  
CC MIM; 162641; -;  
CC GO; GO:0005887; C: integral to plasma membrane; TAS.  
CC GO; GO:0004983; F: neuropeptide Y receptor activity; TAS.  
CC GO; GO:0007193; P: G-protein signaling, adenylate cyclase inh. .; TAS.  
CC GO; GO:0007187; P: G-protein signaling, coupled to cyclic nucl. .; TAS.  
CC InterPro; IPR000276; GPCR\_Rhodopsin.  
CC InterPro; IPR000351; NPY1\_Receptor.  
CC InterPro; IPR000611; NPY\_Receptor.  
CC Pfam; PF00001; 7tm1.1;  
CC PRINTS; PR00237; GPCRHHODPSN.

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DR PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR PROSITE; PS00262; G_PROTEIN_RECEP_F1_2; 1.
KW G-protein coupled receptor; Glycoprotein; Lipoprotein; Palmitate;
KW Phosphorylation; Polymorphism; Transmembrane.
FT DOMAIN 1 39 Extracellular (Potential).
FT TRANSMEM 40 62 1 (Potential).
FT DOMAIN 63 72 Cytoplasmic (Potential).
FT TRANSMEM 73 94 2 (Potential).
FT DOMAIN 95 114 Extracellular (Potential).
FT TRANSMEM 115 136 3 (Potential).
FT DOMAIN 137 156 Cytoplasmic (Potential).
FT TRANSMEM 157 177 4 (Potential).
FT DOMAIN 178 210 Extracellular (Potential).
FT TRANSMEM 211 232 5 (Potential).
FT DOMAIN 233 263 Cytoplasmic (Potential).
FT TRANSMEM 264 286 6 (Potential).
FT DOMAIN 287 299 Extracellular (Potential).
FT TRANSMEM 300 323 7 (Potential).
FT DOMAIN 324 384 Cytoplasmic (Potential).
FT CARBOHYD 2 2 N-linked (GlcNAc. . .) (Potential).
FT CARBOHYD 11 11 N-linked (GlcNAc. . .) (Potential).
FT CARBOHYD 17 17 N-linked (GlcNAc. . .) (Potential).
FT DISULFID 113 198 By similarity.
FT LIPID 338 374 S-palmitoyl cysteine (Potential).
FT VARIANT 374 374 K -> T (in dbSNP:5578).
FT CONFLICT 96 96 F -> L (in Ref. 2).
FT SEQUENCE 384 AA; 44392 MW; 58280DD804490316 CRC64;

. Query Match
Best Local Similarity 29.5%; Score 771.5; DB 1; Length 384;
Matches 170; Conservative 75; Mismatches 128; Indels 117; Gaps 8;

Qy 20 NKTLL--ATENNTA----ATRNDFPVWDDYKSSVDDLOYLGL-YTFVSLGFMGMILLI 72
Db 2 NSTLFSQVENHSHSNFSEKNAQLAFENDCHPLAMIFTLALAYGAVIILGVSQNLAL 61
Qy 73 LMALMKRNQKTTVNFILGNLAFSDILVLFCSPTLTSLVLLDQWFGKVMCHIMPFLQC 132
Db 62 IIIILKOKERNVTNIIIVNLSFSDLLVAMCLPFTFYTLMDHWFGEMCKLNPFVQC 121
Qy 133 VSVLVSTLIISIAIVRYHMIKHPISNNLTANHGFLIATVTLGFAICSPLPVPHSLVE 192
Db 122 VSIIVSIFSLVIAVERHQLINPRGWRPNRHAYVGLAVIWL--AVASSLPFLIYQVM 179
Qy 193 LOETFGSALLSS----RYLCVESWPSDSYRTAFTISLLVQVILPLVCLTWSHTSVCRSIS 249
Db 180 TDEPFQNVTLDAYKDKYVCFQFSDSHRLSYTTLVLLVQYFGLCFIFCYFKI----- 234
Qy 250 CGLSKENRLEENEMINLTLPSSKSGPQVKLSGSHKWSYFIFKHRRYSKKTACVLP 309
Db 235 -----YILKRR----- 241
Qy 310 PERPSQENHSRILPENFGSVRSQSSSKFTPGVPTCFEIKPEENSDVHELVRKRSVTRI 369
Db 242 -----NNWMDKMRDNKYSSE 257
Qy 370 KGRSRVYRLTILLVFNASWMLHLPHVYVDFDNDNLISNRHFKLYVCYCHLLGWSMCC 429
Db 258 TKR---INIMLSIWAFAVCWLEPLTFNTVFDNWHQIATCNHNLFLCHLTAMISTC 314
Qy 430 LNPILYGLNNGIQDLOFFNFCDFRSRDDDYETIAMSTMTDVSKTSLKQASPVAFKK 489
Db 315 VNPIFYGLNKNFQDLOFFNFCDFRSRDDDYETIAMSTMTDVSKTSLKQASPVAFKK 374
Qy 490 INNDDNEKI 499
Db 375 INNDDNEKI 384

RESULT 10
NYLR_CANFA
ID_NYLR_CANFA STANDARD; PRT; 382 AA.

AC 002813;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-DEC-1998 (Rel. 37, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Neuropeptide Y receptor type 1 (NPY.-R).
GN Name=NPY1R;
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX NCBI_TaxID=9615;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=99017380; PubMed=9802394; DOI=10.1016/S0167-0115(98)00053-6;
RA Malmstrom R.E., Hoekfelt T., Bjorlman J.-A., Nihlen C., Bystrom M.,
RA Ekstrand A.J., Lundberg J.M.;
RT "Characterization and molecular cloning of vascular neuropeptide Y
receptor subtypes in pig and dog.";
RL Regul. Pept. 75:55-70(1998).
CC -!- FUNCTION: Receptor for neuropeptide Y and peptide YY.
CC -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
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CC -----
CC EMBL; AF005778; AAC08046.1; .
CC InterPro; IPR000276; GPCR_Rhodopsn.
CC InterPro; IPR000351; NPY1_receptor.
CC InterPro; IPR000611; NPY_Receptor.
CC Pfam; PF00001; 7tm1; 1.
CC PRINTS; PR00237; GPCRHOPOPSN.
CC PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
CC PROSITE; PS00262; G_PROTEIN_RECEP_F2_1; 1.
KW G-protein coupled receptor; Glycoprotein; Lipoprotein; Palmitate;
KW Phosphorylation; Transmembrane.
FT DOMAIN 1 38 Extracellular (Potential).
FT TRANSMEM 39 61 1 (Potential).
FT DOMAIN 62 71 Cytoplasmic (Potential).
FT TRANSMEM 72 93 2 (Potential).
FT DOMAIN 94 113 Extracellular (Potential).
FT TRANSMEM 114 135 3 (Potential).
FT DOMAIN 136 155 Cytoplasmic (Potential).
FT TRANSMEM 156 176 4 (Potential).
FT DOMAIN 177 209 Extracellular (Potential).
FT TRANSMEM 210 231 5 (Potential).
FT DOMAIN 232 262 Cytoplasmic (Potential).
FT TRANSMEM 263 285 6 (Potential).
FT DOMAIN 286 298 Extracellular (Potential).
FT TRANSMEM 299 322 7 (Potential).
FT DOMAIN 323 382 Cytoplasmic (Potential).
FT CARBOHYD 2 2 N-linked (GlcNAc. . .) (Potential).
FT CARBOHYD 11 11 N-linked (GlcNAc. . .) (Potential).
FT CARBOHYD 17 17 N-linked (GlcNAc. . .) (Potential).
FT DISULFID 112 197 N-linked (GlcNAc. . .) (Potential).
FT LIPID 337 337 By similarity.
FT SEQUENCE 382 AA; 44245 MW; 95B57D20D6299803 CRC64;

Query Match
Best Local Similarity 29.1%; Score 761; DB 1; Length 382;
Matches 167; Conservative 69; Mismatches 124; Indels 112; Gaps 7;

Qy 32 TRNSDFPVWDDYKSSVDDLOYLGL-YTFVSLGFMGNLILMALMKRNQKTTVFLI 90
Db 19 SENSQFLAFESDDCHPLAMIFTLALAYGAVIILGVTGNLALIMILKQKEMRNVTLI 78
Qy 91 GNLAFLDILVLFCSPTLTSLVLLDQWFGKVMCHIMPFLQCVSLVTLISIAIVRY 150
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Db 79 VNLSPSLLVAIMCLPFTFVYTLMDHWFGEAMCKLNPFVQCVSITVSIFSLVIAVERH 138  
Qy 151 HMKHPISNNLTANHYFLIATVTLTGAFCSPPLVPHSLVELQETFGSALLSS---RYL 207  
Db 139 QLIINPRGWRPNRHHAYVIAVWL--AVSSLEFLYQVLTDPFQNVTLDAFKIV 196  
Qy 208 CVESWPSDSYRIAFITISLLVQYIPLVCLTVSHTSVCSISGSLSKENRLEENMINL 267  
Db 197 CDFKPPSDSHLSYTLTLLMLQYFGPLCFIFCYFKI----- 233  
Qy 268 TLHPSKSGPQVKSLSHWSYFPIKHRRYSKKTACVLPAPERPSQENHSRIILPENFG 327  
Db 234 -----YRLKRR----- 240  
Qy 328 SVRSQSSSKFIPGVTCTFEIKPEENSDVHELVRKRSVTRIKRSGSVFYRLTILILVF 387  
Db 241 -----NNMDKWRDNKYRSSETR---INIMLSIVVAF 271  
Qy 388 AVSMPLHLFHVVTDFNDNLISNRHFKLYCICHLGMMSCCLNPILYGLNNGIQRLQ 447  
Db 272 AVCMLPLTIFNTVFNHQLIATCNHLLFLCHLTAMISTCVNPIFYGLNKNFQRLQ 331  
Qy 448 FFFNCFDRSDDDDYETIAMSTMHTDVSKTSLKQASPVAFKKINNDNEKI 499  
Db 332 FFFNCFDRSDDDDYETIAMSTMHTDVSKTSLKQASPVAFKKI--NNDDNEKI 382

RESULT 11  
Q9GK75 PRELIMINARY; PRT; 383 AA.  
ID Q9GK75 AC Q9GK75  
DT 01-MAR-2001 (TremBLrel. 16, Created)  
DT 01-MAR-2001 (TremBLrel. 16, Last sequence update)  
DT 01-JUN-2003 (TremBLrel. 24, Last annotation update)  
DE Neuropeptide Y receptor Y1.  
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopitheciidae;  
OC Cercopitheciinae; Macaca.  
OX NCBI\_TaxID=9544;  
RN [1]  
SEQUENCE FROM N.A.  
RP MEDLINE=21184974; PubMed=11287088; DOI=10.1016/S0196-9781(01)00336-9;  
RX Gehlert D.R., Yang P., George C., Wang Y., Schober D.,  
RA Gackenheimer S., Johnson D., Beavers L.S., Gadski R.A., Baez M.  
RT "Cloning and characterization of Rhesus monkey neuropeptide Y receptor  
subtypes(1).";  
RL Peptides 22:343-350(2001).  
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
CC EMBL; AF303089; AAG40771.1; -  
DR GO; GO:0016021; C:integral to membrane; IEA.  
DR GO; GO:0004983; F:neuropeptide Y receptor activity; IEA.  
DR GO; GO:0004872; F:receptor activity; IEA.  
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.  
DR GO; GO:0007218; P:neuropeptide signaling pathway; IEA.  
DR InterPro; IPR000276; GPCR\_Rhodopsn.  
DR InterPro; IPR000351; NPYL\_receptor.  
DR Pfam; PF00001; 7tm\_1; 1.  
DR PRINTS; PR00237; GPCR\_RHODOPSIN.  
DR PRINTS; PR01013; NRPEPTIDEVR.  
DR PRINTS; PR01012; NRPEPTIDEVR.  
DR PROSITE; PS00237; G\_PROTEIN\_RCEP\_F1\_1; 1.  
DR PROSITE; PS02662; G\_PROTEIN\_RCEP\_F1\_2; 1.  
KW G-protein coupled receptor; Neuropeptide; Receptor; Transmembrane.  
SQ SEQUENCE 383 AA; 44305 MW; F872C45AA90DF62A CRC64;

Query Match 28.7%; Score 752; DB 2; Length 383;  
Best Local Similarity 34.3%; Pred. No. 2.5e-42;  
Matches 168; Conservative 76; Mismatches 128; Indels 118; Gaps 9;  
Qy 20 NKTLL--ATENNTA----ATRNDFPVMDYDKSSVDDQLQYFLIGL-YTFVSLLGFMGNLLI 72

Db 2 NSTLFSOVENSHVSNPSEKNAQLAPENDCHLPLAMIFTLALAYGAVIILGVSGNAL 61  
Qy 73 LMALMKKNQKTTNFNGLINLAFSDILVVLFCSPFTLTSLVLDQWFMFKVCHMIPFLQC 132  
Db 62 IILIKQKEMRNVNLIIVNLVSFSDLLVAIMCLPFTFVYTLMDHWFGEAMCKLNPFVQC 121  
Qy 133 VSVLSTLILISIAIVRYHMIKHPISNNLTANHGCVFLIATVMTLGAFCSPPLVPHSLVE 192  
Db 122 VSIIVSIFSLVIAVERHQLIINPRGWRPNRHHAYVIAVWL--AVASSLPFLIYQVM 179  
Qy 193 LQETFGSALLSS---RYLCVESWPSDSYRIAFITISLLVQYIPLVCLTVSHTSVCSIS 249  
Db 180 TDEPFQNVTLDAYKDKVCFQFSDSHLSYTLTLLMLQYFGPLCFIFCYFKI----- 234  
Qy 250 CGLSKENRLEENMINLTHPSKSGPQVKSLSHWSYFPIKHRRYSKKTACVLP 309  
Db 235 -----YRLKRR----- 241  
Qy 310 PERPSQENHSRIILPENFGSVRSQSSSKFIPGVTCTFEIKPEENSDVHELVRKRSVTRI 369  
Db 242 -----NNMDKWRDNKYRSSE 257  
Qy 370 KKRSGSVFYRLTILILVFAVSMPLHLFHVVTDFNDNLISNRHFKLYCICHLGMMSCC 429  
Db 258 TKR---INIMLSIVVAFVAVCWLPLTIFNTVFNHQLIATCNHLLFLCHLTAMISTC 314  
Qy 430 LNPILYGLNNGIQRLQFNFCDFRSDDDDYETIAMSTMHTDVSKTSLKQASPVAFKK 489  
Db 315 VNPIFYGLNKNFQRLQFNFCDFRSDDDDYETIAMSTMHTDVSKTSLKQASPVAFKK 374  
Qy 490 INNDDNEKI 499  
Db 375 I--NNDDNERI 383

RESULT 12  
ID NVIR RAT STANDARD; PRT; 382 AA.  
AC P21555;  
DT 01-MAY-1991 (Rel. 18, Created)  
DT 01-MAY-1992 (Rel. 22, Last sequence update)  
DT 25-OCT-2004 (Rel. 45, Last annotation update)  
DE Neuropeptide Y receptor type 1 (NPYL-R) (FC5).  
GN Name=Npylr;  
OS Rattus norvegicus (Rat).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.  
OX NCBI\_TaxID=10116;  
RN [1]  
SEQUENCE FROM N.A.  
RC TISSUE=Brain;  
RX MEDLINE=91032093; PubMed=2172008; DOI=10.1016/0014-5793(90)80377-U;  
RA Eva C., Keinaenen K., Monyer H., Seeburg P.H., Sprengel R.;  
RT "Molecular cloning of a novel G protein-coupled receptor that may  
belong to the neuropeptide receptor family.";  
RL FEBS Lett. 271:81-84(1990).  
RN [2]  
REVIEWS, AND FUNCTION.  
RC TISSUE=Brain;  
RA Krause J.E., Eva C., Seeburg P.H., Sprengel R.;  
RL Submitted (NOV-1991) to the EMBL/GenBank/DBJ databases.  
CC -1- FUNCTION: Receptor for neuropeptide Y and peptide YY.  
CC -1- SUBCELLULAR LOCATION: Integral membrane protein.  
CC -1- TISSUE SPECIFICITY: Brain.  
CC -1- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
CC -----  
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FT DISULFID 112 197 By similarity.
FT LIPID 337 337 S-palmitoyl cysteine (By similarity).
FT VARSPLIC 304 307 CHLT -> LNMN (in isoform NPYL-R beta).
FT VARSPLIC 308 382 /FTId=VSP 001912.
FT VARSPLIC 308 382 Missing (in isoform NPYL-R beta).
FT VARSPLIC 308 382 /FTId=VSP 001913.
FT SEQUENCE 382 AA; 44014 MW; CDCCF93E3ABB4D70 CRC64;

Query Match 28.3%; Score 739.5; DB 1; Length 382;
Best Local Similarity 33.4%; Pred. No. 1.7e-41;
Matches 165; Conservative 76; Mismatches 126; Indels 127; Gaps 10;

Qy 20 NKTL--ATENNTA---ATRNDFPVDYKSSVDDLYQYFLIGLYTF-----VSLGFGWG 68
Eb 2 NSTLFSKVENHSHYNASENSPLAFEN-----DCHLPLAVITLALAVGAVIILGVSG 56

Qy 69 NLILMALMKRQKQTVNPLIGNLAFSDILVLVFCSPFTLTSLVLDQWFMFGVMCHIMP 128
Db 57 NLALIIILKQKERNVNTNLIIVNLSFSDLLVAVMCLPFTFVYTLMDHWVGETMCKLNP 116

Qy 129 FLQCVSLVSTLILISIAIVRYMHKHPISNNLTANHGYFLIATVWTLGFAICSPLPVHF 188
Db 117 FVQCVSITVSIFSLVIAVERHQIILNPRGWRPNRHHAYIGITVIWVLAVALSPFVIYQ 176

Qy 189 SILVELQTFGSALLSS---RYLCVESWPDSYRIAFITISLLVQYTLPLVCLTVSHTSVC 245
Db 177 ILTD--EPFQNVSLAFAFKDKYVCFDPKPSDSHRLSYTLLVLLVQYFGPLCFIFCYFKI- 233

Qy 246 RSISGCLSNKENLEENEMINLTLPKSKGPGQVLSGSHKWSYFIKRRHRYSKKTAC 305
Db 234 -----YIRLKRNNMMDK----- 246

Qy 306 VLPAPERPSQENHSRILPNFGSVRSQSSSKFIPGVPTCFELKPENSDVHELVRKS 365
Db 247 -----IRDSKYRSSE----- 256

Qy 366 VTRIKKRSRVFVRLTILVFAVSWMLHLFHVWTFDNDNLISNRHFKLVYICHLGLM 425
Db 257 -----TKRINIMLSIVAVFVAVCWLPFIENFVDFWQHQTATCNHLLFLLCHLTAM 309

Qy 426 MSCCLNPILYGLFNGIQRLQDFNFCDFRSDDDDYETIAMSTMHTDVSKTSLKQASPV 485
Db 310 ISTCVNFIYGLMKNFQRLQDFNFCDFRSDDDDYETIAMSTMHTDVSKTSLKQASPV 369

Qy 486 AFKKNNDNEKI 499
Db 370 AFKISMN-DNEKV 382
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RESULT 15
NYIR_CAVPO STANDARD; PRT; 383 AA.
AC Q9WVD0;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Neuropeptide Y receptor type 1 (NPYL-R).
GN Name=NPYL;
OS Cavia porcellus (Guinea pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Hystriognathi; Caviidae; Cavia.
OX NCBI_TaxID=10141;
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE=99427767; PubMed=10499421; DOI=10.1016/S0196-9781(99)00098-4;
RX Berglund M.M., Holmberg S.K.S., Eriksson H., Gedda K., Maffrand J.-P.,
RA Serradeil-Le Gal C., Chhajlani V., Grundemar L., Larhammar D.;
RT "The cloned guinea pig neuropeptide Y receptor Y1 conforms to other
mammalian Y1 receptors."
RL Peptides 20:1043-1053(1999).
CC -!- FUNCTION: Receptor for neuropeptide Y and peptide YY.
CC -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
```

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CC or send an email to license@isb-sib.ch)
CC -----
CC EMBL; AF135061; AAD43060.1;
DR InterPro; IPR000276; GPCR_Rhodpsn.
DR InterPro; IPR000351; NPY1_receptor.
DR InterPro; IPR000611; NPY_receptor.
DR Pfam; PF00001; 7tm_1; 1.
DR PRINTS; PR00237; GPCR_HODOPS.
DR PROSITE; PS00337; G_PROTEIN_RECP_F_1; 1.
DR PROSITE; PS00362; G_PROTEIN_RECP_F_2; 1.
KW G-protein coupled receptor; Glycoprotein; Lipoprotein; Palmitate;
KW Phosphorylation; Transmembrane.
FT DOMAIN 1 39 Extracellular (Potential).
FT TRANSMEM 40 62 1 (Potential).
FT DOMAIN 63 72 Cytoplasmic (Potential).
FT TRANSMEM 73 94 2 (Potential).
FT DOMAIN 95 114 Extracellular (Potential).
FT TRANSMEM 115 136 3 (Potential).
FT DOMAIN 137 156 Cytoplasmic (Potential).
FT TRANSMEM 157 177 4 (Potential).
FT DOMAIN 178 210 Extracellular (Potential).
FT TRANSMEM 211 232 5 (Potential).
FT DOMAIN 233 263 Cytoplasmic (Potential).
FT TRANSMEM 264 286 6 (Potential).
FT DOMAIN 287 299 Extracellular (Potential).
FT TRANSMEM 300 323 7 (Potential).
FT DOMAIN 324 383 Cytoplasmic (Potential).
FT CARBOHYD 2 2 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 11 11 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 17 17 N-linked (GlcNAc...) (Potential).
FT DISULFID 113 198 By similarity.
FT LIPID 338 338 S-palmitoyl cysteine (Potential).
FT SEQUENCE 383 AA; 44281 MW; E53B1D93FA735F8E CRC64;

Query Match 27.7%; Score 724.5; DB 1; Length 383;
Best Local Similarity 32.8%; Pred. No. 1.7e-40;
Matches 165; Conservative 73; Mismatches 132; Indels 137; Gaps 8;

Qy 2 SFYSKDYNDLDEYVYNTLATENVTATRNDFPVDYKSSVDDLYQYFLIGLYTF- 60
Db 5 SFSQLENHSHVNLSEKSPFAFEN-----DDCHLPLAVITLA 44

Qy 61 -----VSLGFGMGNLLILMALMKRQKQTVNPLIGNLAFSDILVLVFCSPFTLTSLVLD 115
Db 45 LAYGAVIILGVSGNLALILILKQKERNVNTNLIIVNLSFSDLLVAVMCLPFTFVYTLMD 104

Qy 116 QWMPGKVMCHIMPFLQCVSLVSTLILISIAIVRYMHKHPISNNLTANHGYFLIATVWT 175
Db 105 HWTFEGIMCKLNPFVQCVSITVSIFSLVIAVERHQIILNPRGWRPNRHHAYIGIAVW 164

Qy 176 LGFAICSPLPVHFHSLVLELOTFGSALISS---RYLCVESWPDSYRIAFITISLLVQYIL 232
Db 165 L--AVASSLPFMIYQVLTDFEQNVTLDAFKDKLVCFDPKPSDSHRLSYTLLVQYFG 222

Qy 233 PLVCLTVSHTSVCRSISGCLSNKENLEENEMINLTLPKSKGPGQVLSGSHKWSYFI 292
Db 223 PLCFIFICYFKI-----YIRL 238

Qy 293 KKHRRRYSKKTACVLPAPERPSQENH3RILPENFGSVRSQSSSKFIPGVPTCFEIKPE 352
Db 239 KRNNMMDK-----MDSKYRSSE----- 257

Qy 353 ENSDVHELVRKRSVTRIKKRSRVFY3LTLILVFAVSWMLHLFHVWTFDNDNLISNRH 412
Db 258 -----SKRINI4LLSIVAVFVAVCWLPFIENFVDFWQHQTATCN 297
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Job time : 182 secs

